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ABSTRACT

This report examines the participation of Australia's vocational education and training sector in aid projects in Southeast Asia and the Pacific from 1980-1997. It begins with background information on training assistance to developing countries, and it outlines the economic and educational assumptions underlying Australia's aid program to six Southeast Asian and seven Pacific Island nations. Detailed background information and descriptions of aid projects in Indonesia, the Philippines, Western Samoa, the Solomon Islands, and Papua New Guinea are provided. The report notes that the countries are in various stages of transition from traditional to modern, wage-based economies, and Australia's approach has been pragmatic, attempting to offer best practices within the host country's existing structural and policy framework. Three recurring issues are identified: (1) problems with project design; (2) adequacies of equipment and skills related to learning technologies; and (3) differences in cultural values. The prospects for the sustainability and continued effectiveness of projects are addressed. The report contains 3 appendices that include documents examined, persons consulted, and program components by project year and cost. (Contains 56 references.) (SK)

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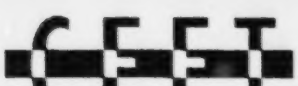

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Stepping Offshore: An examination of Australia's bilateral program-based assistance for the development of Vocational Education and Training in its region

Leo Maglen and Sonnie Hopkins

WORKING PAPER No. 34
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- equity and VET;
- models for analysing student flows in higher education and in vocational education; and
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FOREWORD

This work was undertaken in order to raise consciousness within Australia's VET system of the important role that the sector has been performing in assisting less developed countries in the region to develop their systems of technical and vocational education. In doing so, we hope also to add to the knowledge-pool, with emphasis on the effectiveness of alternative strategies for project-based assistance.

We are most grateful to the various people who have contributed their views and ideas. In particular, we thank Mr Trevor Kanaley, (then) Director General of AusAID, for making his organisation's records available to us, and for the support given to Sonnie Hopkins by AusAID staff while she studied those records. We also especially thank Dr Syd Strong for his input to the section on curriculum and organisational models and for his helpfulness in debating other issues addressed in the paper, and Ms Appy Laspagis, librarian, for undertaking a literature search in support of the project.

An earlier draft was sent to a few key people who have had major roles in this field. We thank them for their most helpful comments and have sought, where practicable, to address the issues they raised. Nevertheless, any errors of fact or misinterpretation remain ours. Interpretation and reading between the lines form a significant part of research of this type, even when the views of some key players are sought to corroborate or contradict emerging perspectives. What is more, the project has had to deal with a shortage of explicit material, given that it has been the first attempt in Australia to undertake this sort of investigation. In spite of these constraints, we trust it proves a useful addition to the growing Australian VET research literature.

Leo Maglen
Professor and Head of Centre

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SECTION 1: INTRODUCTION

> *Australia will contribute to the development of a skilled and adaptable workforce which meets the short to medium term needs of both the public and private sectors in developing countries.*
>
> *The Hon Alexander Downer MP*
> *Minister for Foreign Affairs, 1996*

Australia has viewed the development of its Vocational Education and Training (VET) sector as fundamental to improving the performance of its industries and achieving equity in access to its labour market. Most countries in the region have also been facing the challenges of improving inadequate economic performance and addressing high levels of unemployment. They, too, have viewed the development of their equivalent sectors as an essential element in overall socio-economic development. For some South East Asian countries the process is well advanced; for others, recent crises whether economic, political or cultural, are challenging the viability of reforms to this stage. And for most countries of the Pacific, development is still in its infancy; yet here too, crises may be having their impact. International development assistance projects have been an important source of support. Australia has been a significant contributor to the development of vocational education and training in both South East Asia and the Pacific (SEAP). The demands of ongoing globalisation (world-wide flows of international capital, goods, ideas and people), along with significant levels in-country of unemployment, poverty and depravation, will probably ensure a continued demand for assistance well into the next century. Australia's VET sector is expected to seek to continue its role. Success will depend on many factors. Two important ones are building on the lessons learnt, and clients' satisfaction with service delivery.

Support has taken the form of bilateral and multilateral aid programs with the World Bank, the Asian Development Bank, the International Labour Organisation, UNESCO, the Commonwealth Secretariat etc., basic assistance through Non Government Organisations, and intra-industry / corporate programs of training that are commonly privately funded.

This paper has been prepared in order to delineate Australia's major VET sector participation in bilateral aid projects to SEAP in the period 1980 to 1997. It should assist those who continue to work in the area and those who are seeking to participate for the first time.

'Technical and Vocational Education' or 'TVE' is the term in common usage in the region to refer to the education for which most of the assistance has been provided. Therefore the acronym 'TVE' is used throughout this paper in reference to developing countries' school-based technical and vocational education and most post-secondary programs, including those with industry placement.

The paper first provides some general information on TVE and training assistance to developing countries. It then examines Australia's aid program. It seeks to explicate the program's underlying economic and educational assumptions. It will argue that the program assumes a relationship between provision of vocational and technical education at secondary and post-secondary levels, regional economic growth, and financial returns to the individuals concerned and to others. It will further argue that Australia's approach has been essentially

pragmatic; while offering what it has seen as current educational best practice it has readily accepted the need to work within a host country's existing structural and policy framework.

An overall picture of the bilateral aid program is provided. Individual country programs are mapped to show component projects against year and funding level. Projects are examined for their underlying philosophies, educational and economic models and assumptions. By then giving a fairly detailed narrative for components of three of the country programs, and brief narratives for two more, it is hoped to convey some sense of what project activity entails. Then follows a section that highlights commonly encountered challenges. The final sections take a brief look at program effectiveness and sustainability, and possible future directions within the context of the current models.

SECTION 2: BACKGROUND TO DEVELOPMENT ASSISTANCE BY AUSTRALIA

> *Without question, governments are an essential partner in the national responsibilities for providing an effective and efficient system of education for the world of work.*
>
> *UNESCO UNIVOC, 1997*

Introduction

Economic growth and development have long been recognised and accepted as the cornerstones of national development plans and strategies throughout the world, for the achievement of better living standards, for improved material welfare and to meet the growing aspirations of ordinary people. These plans and strategies have differed, and the success with which they have been implemented has varied over time and between countries: but economic growth and development have been common elements in, and the engine driving all national development processes.

It has also long been recognised that education and training are crucial to economic growth and development, through their impact on employment and the workplace. Their influence, too, extends to other facets of the development process – social, political, cultural, intellectual and spiritual. They may affect health and fertility, the role of women in society, urbanisation, the development of political institutions and processes, social patterns, ideas and values, relationships with the natural environment, and so on. The nature of the effects depends on context – national, political, social, cultural and geographic. Moreover, it changes over time, and varies with the stage of economic growth and development a nation is passing through.

Development Drives in South East Asia and the Pacific

Governments in SEAP are under increasing pressures from within their own countries, whether through officially recognised organisations, power-exercising unofficial networks or the political process, to deliver economic growth. Added to these internal pressures are external ones. Those South East Asian countries directly implicated in the recent financial crisis are obliged to put their countries on a firm economic footing, with growth through development of industries for which there is a market and which utilise local strengths, transparent budgeting and prudent financial dealings.

At the community level, people are increasingly expectant of an improving standard of living, as knowledge of lifestyles of those in developed countries and of affluent co-nationals increases. For many developing countries, increasing democratisation and a growing middle class are empowering populations to communicate their expectations as demands for

- opportunities for education and training;
- access to better health services;
- the eradication of extreme poverty through improved returns to current employment (commonly in agriculture) and new employment opportunities, especially for young people, locally or through migration to urban centres;
- the emancipation of women via education, control of fertility, and opportunities for employment;
- arrest and reversal of environmental degradation from non-sustainable agricultural practices, the ravages of war, and the short-sighted exploitation of resources.

Whether governments view meeting t[illegible]e demands as the role of the public or private sector or both, wealth creation through economic growth is seen as a precondition to their ongoing delivery. Given that general education and TVE are recognised as contributors to economic growth, and that all of the above, of themselves, have general education and TVE implications, they are inextricably linked to the process of socio-economic development.

Businesses, in developing countries as elsewhere, look to governments to promote conditions which optimise their operations and returns. Their expectations typically include improved infrastructure in the form of communications and transport systems, port facilities, buildings and services and access to labour and financial services. Again, all have general education and TVE implications. But what those implications are is not necessarily clear-cut. For multinational enterprises looking to exploit pools of low-cost, minimally-skilled labour, general education beyond the most basic, and TVE, may be viewed negatively. Similarly, for local manufacturers of mass-produced, low-quality products for which there is a continuing demand, there may be little interest beyond literacy and basic-skills provision. But markets are not static; with increasing domestic and global competition, and with increasing wealth and changing tastes locally, enterprise demands for skills change. In time, as countries develop socially and economically, new business opportunities emerge. Enterprises seek to maintain competitiveness and/or increase profitability through improved management and work practices, changes in technologies, better marketing and, perhaps, new alliances. New products and services appear and many of the old ones are withdrawn or modified. For developing countries in SEAP, of increasing significance is the provision of goods and services in-country to "first world" customers, whether tourists or business persons. All these developments mean changing demands for skilled labour.

Government Responses and Priorities

Governments in SEAP have typically seen it as in their interest to pursue socio-economic development. For some, burgeoning international debt, and commitments under various international treaties and agreements, have commonly reinforced internal pressures for action with the result that investment has commonly been unsound and the levels of return unsustainable. Notwithstanding, the need to increase the pool of work-related skills in the community has been a priority, given that achieving sustainable economic growth through development of internationally competitive enterprises remains paramount.

Underpinning governments' commitments to developing their TVE sectors as part of overall development, as reflected in their national planning documents, has been the conviction that

- economic reforms are dependent on an adaptable, skilled and knowledgeable workforce;
- social reforms are dependent on the individual's access to general education and TVE.

Governments have sought to initiate TVE reform in the context of a complex fabric of demands and imposts. They have employed the traditional tools of broad policy development, high-level planning, and legislative and regulatory change, looking to their bureaucracies both to carry out detailed planning and to implement and monitor reforms. In the main, governments have chosen to expand their provision at secondary school level. For the majority of countries in the study this has been consistent with patterns of retention in which significant proportions of young people do not proceed beyond primary or lower secondary school level. Thus vocational education provision, either along with general secondary level

schooling or as an alternative to it, is in reach of many young people. Understandably, as retention levels increase, the tendency is for entry requirements to increase.

Where governments have sought to introduce major educational reform, it has been common for bureaucrats not to have the skills required to implement those reforms. Similarly, the sectors responsible for TVE delivery have commonly lacked the human and physical resources necessary for execution. As a consequence, TVE reform has typically necessitated whole-system change, in management skills such as planning, finance, resources, personnel and evaluation, in teaching and in client consultation.

Australia's Interests in Provision of Assistance

Australian governments and Australians in general have long sought to assist people in other countries. Altruism has been a driver; as an affluent nation, physically well-endowed with the relevant capabilities, Australia has accepted a humanitarian responsibility to other, less fortunate countries. But Australia's interests have also been strategic and economic:

- increasing Australia's standing internationally and regionally so as to strengthen its influence;
- developing friendly relations and cultural understanding with near neighbours so as to minimise potential major conflict;
- developing markets for Australian products and services;
- promoting forms of regional development that accord with Australia's interests, such as pollution minimisation.

The Australian community has been made aware of Australia's interest in and involvement (one way or another) with South East Asia over many decades. But, except for New Guinea, and perhaps very recently, Fiji, this country's concerns with South Pacific nations have been less in the forefront of public notice. Australia's Parliamentary Joint Committee on Foreign Affairs, Defence and Trade (1989, p xxii) noted:

> *The Australian public until recently had a very romanticised view of the* [South Pacific] *region, a view now challenged by the rapid political and social change taking place in the area. The Australian Government has also been caught unprepared for the rate of change. Until the mid-1970s, Australia had adopted a benign, paternalistic attitude to the region, being more occupied with relations with major allies and the ASEAN region. Events since the early 1980s have forced a reappraisal of policy toward the region.*

In terms of aid to the South Pacific the dominant focus has been English-speaking nations in the region. This has built on Australia's and New Zealand's jointly accepted role of group leadership and an implicit responsibility to assist those less developed nations in particular.

Australia's assistance delivered through the work of people associated with its VET sector can and has contributed in each of these ways - but especially in enhancing the sector's credibility internationally, in strengthening professional relationships, and in building off-shore markets for its services, both to fee-paying students and to enterprises and other organisations.

Importantly too, Australia's TVE and training assistance has:

- contributed to the esteem with which the VET sector is held domestically, and the self-esteem of those working in the sector;

- generated finances through accessing aid funding;
- provided development opportunities for its personnel in diverse settings to improve their learning and performance.

The Role of International Aid Agencies

Middleton, Ziderman and Van Adams (1993) classify aid as *concessional aid* and *development bank aid*. Concessional aid is composed of grants or contributions in kind, and low interest loans, and is provided by bilateral and multilateral agencies. The rest is provided by development banks, at interest rates that may or may not be low in market terms.

As the name implies, bilateral agencies provide aid from a single government to a single government (country programs). The aid which is the subject of this study is that provided by Australia through its agency, the Australian Agency for International Development (AusAID) and its predecessor, the Australian International Development Assistance Bureau (AIDAB), in the form of project-based assistance (technical assistance, equipment and materials, construction and repair, fellowships etc.). Country programs also include assistance in the form of sponsored students and trainees, and food aid. Other bilateral agencies active in Australia's region include CIDA (Canada), GTZ (Germany, a government owned company specialising in technical aid), ODA (the United Kingdom), the NZ Aid Bureau (New Zealand), USAID, NOVIB (Netherlands), Swissaid and JICA (Japan). In addition, AusAID is a conduit for Australia's contributions to multilateral development banks including the World Bank and the Asian Development Bank, and to multilateral agencies including the International Labour Organisation, and to many other organisations (examples of educational significance include the United Nations Development Program, the Commonwealth Secretariat, the Commonwealth of Learning, SEAMEO and UNESCO).

Non Government Organisations (NGOs) also play an important role in aid delivery. Willets (1996) defines an NGO as any non-profit making, non-violent, organised group of people who are not seeking government office. NGOs form for all sorts of purposes but the term is usually applied to those performing a lobbying function. Some are development NGOs operating in the international aid arena, and some of these deliver quite specialised forms of aid. Notwithstanding that some NGOs, such as the Red Cross, are large when the multiple small groups operating under the one organisational umbrella are aggregated, 'A prime difference between NGOs and bilateral and multilateral organisations is that NGOs are at the other end of the scale in terms of size' (Cleary 1996).

Cleary notes also that some NGOs operate in very defined areas, such as literacy, agricultural development and vocational training: these he calls specialist NGOs. Bilateral and multilateral organisations deal officially at government level; NGOs can be freer to assist beyond the bounds of government official policy and even to deliver assistance in enemy held territory in countries in conflict.

A comparison of 1995 levels of Official Development Assistance by the twenty-one Development Assistance Committee members of the OECD expressed as a percentage of GDP, shows Australia as equal eighth with Luxembourg. The level is just over half of the United Nations' target (Australia's Overseas Aid Program Statistical Summary 1995/96).

Australia's decision to provide a program of assistance is based on extensive investigation, consultation and agreement between governments; it depends on some commonality of priorities and objectives. AusAID is replacing the term 'project' with 'program' in order to convey its policy to provide extended and integrated support rather than short, "in-out" help. In this paper, so as to minimise confusion, 'program' is used to refer to the set of activities in a country over the full period of the study. Individually funded components are termed projects.

Country, Regional and Local Differences

When attempting to draw conclusions about the impact and effectiveness of Australia's TVE assistance to SEAP, consideration needs to be given to the diversity of context; individual countries are very different, in their level of development, ethnic mix, cultures and geography.

TABLE 1
POPULATION FIGURES AND SELECTED ECONOMIC INDICATORS

COUNTRY	population millions	life expectancy at birth	fertility rate as children per woman	literacy level % male/female ≥15 years	national product per capita in US$	manufacturing as % of GDP	agriculture as % of GDP	HDI ranking
CAMBODIA	10.0	51	5.8*	48/22*	252*	8*	NA	153#
FIJI	0.77	72	2.7	90/84*	2,440	13*	23*	46#
INDONESIA	200	64	2.7	88/75*	980	40*	21*	99#
LAOS	5	52	6.5	65/35*	350	18*	50*	136#
PHILIPPINES	69	66	3.7	94/93*	1,050	28*	22*	98#
PAPUA NEW GUINEA	4.1	56	4.8	65/38*	1,160	32*	25*	128#
SINGAPORE	2.9*	76*	1.8*	95/83*	19,940*	28*	1*	26#
SOLOMON ISLANDS	0.38	71	5.1	NA	910	5*	31*	122#
THAILAND	59	69	1.8	96/91*	2,740	26*	11*	59#
TONGA	0.10	69	3.3	100/100*	1,630	32*	25*	NA
TUVALU	0.010	67	3.1*	NA	1,223	NA	NA	NA
VANUATU	0.17	64	5.0	57/48*	1,200	10*	NA	124#
VIETNAM	73	68	3.1	93/83*	240	21*	36*	121#
WESTERN SAMOA	0.17	65	4.2	97/97**	970	16*	50*	96#

Non-starred figures are 1995 estimates published by AusAID. Starred figures are estimates made in the 1990s except for ** which are 1971 figures. The starred figures are compiled from Compton's Interactive World Atlas © 1996 SoftKey International Inc. Hatched figures are country rankings against the United Nations Development Program's Human Development Index (HDI) 1997 (see text).

Table 1 provides population figures and a range of parameters relating to the levels of social and economic development of the SEAP countries in the study. Especially recently, value of incomes in US$s can have changed markedly day to day; so it is not practicable to suggest present-day incomes. Rather, the figures relate to the early '90s. Singapore, an advanced developed nation, has been included for comparison. The Human Development Index as estimated under the United Nations Development Program combines measures of life

expectancy, literacy and income. The Index assumes complete substitutability amongst the variables and equal weighting. Palazzi and Lauri (1998) criticise the assumptions and propose possible methods for overcoming them. In spite of obvious shortcomings, rankings against the indices give a ballpark notion of quality of life of ordinary people. (For 1997 Australia's ranking was 14, Canada's 1, while the lowest listed was Sierra Leone's at 175.)

It can be seen that populations of assisted countries classified as South East Asian are in the millions, from Indonesia with 200 million people to Laos with five million. Papua New Guinea, classified as being part of the Pacific region, has four million people; the other Pacific countries have less than one million. On the basis of ranking against the Human Development Index, Fiji ranks quite highly and only Cambodia could be thought of as close to the bottom.

Among South East Asian countries, Cambodia and Laos have markedly lower literacy levels, life expectancy and national product per capita levels than most other countries in their region, with literacy rates for women much lower than for men. Their fertility rates are the highest in the group. Both countries constitute emerging economies. By contrast, Thailand has a relatively high national product per capita level, life expectancy and literacy level. It is an advanced stage developing economy, sometimes referred to as a newly industrialised economy. It does not however, match Singapore, an advanced developed nation, for other than literacy levels. In between are the Philippines and Indonesia, with Vietnam having the lowest per capita national product but being similar to the more advanced developing economies in the other respects. Manufacturing tends to be a greater contributor to GDP in the more developed countries and agriculture a lesser one.

Among Pacific region countries, patterns are less apparent. And recent political upheavals in some of these countries may be affecting some of the patterns that have been observable. The Solomon Islands has the lowest per capita income in the group and the highest fertility rate. Yet it also has one of the highest life expectancy levels. Tonga and Western Samoa have virtually fully literate communities. The literacy level for Papua New Guinea is particularly low, with that of women even lower than that of men.

The contribution of agriculture to GDP might suggest that, for most countries, relatively few people work in the sector. In fact, for nearly all countries, half or more of the community carry out agricultural work. For instance, 80 percent of people in Vanuatu work in agriculture. The small impacts on GDP reflect inefficiencies and the subsistence nature of much of it. Improving agricultural practices is a major challenge to developing countries. Most in the SEAP regions are faced with soil erosion and deforestation. Soil quality of Pacific islands of coral atoll origin is poor. Most countries also suffer from inadequate supplies of potable water, a problem that growth of mining and secondary industry can make worse unless controls ensure suitable management.

Natural wealth in terms of known mineral deposits varies from the rich reserves of Papua New Guinea (especially gold, silver and copper) and Indonesia (oil and various metals) to Western Samoa and Vanuatu with negligible known reserves.

Most countries have a racial and religious mix with more than one language spoken. In Indonesia, Javanese make up 45 percent of the population, Sudanese 14 percent with the balance composed of various other races, in the region of 580 languages and dialects spoken;

85 percent are Muslim, nine percent are Christian, two percent Hindu and one percent Buddhist. Pacific nations typically have much less racial diversity and English is commonly spoken by the more educated.

Except for Thailand, countries in SEAP have all experienced some form of colonial domination in the last century or more. Relationships have been mixed, with independence gained through the actions of strong independence movements (eg. Vietnam, Western Samoa) or through more co-operative transition (eg. Papua New Guinea, Tonga). The consequences were summed up by AIDAB (1994, p. 9) in reference to the Solomon Islands:

> *It can neither revert to a traditional precolonial lifestyle, nor does it have the necessary economic base of educated and experienced bureaucrats and technicians to enable it to take full advantage of its resources.*

Notwithstanding the impossibility of truly resuming an ancestral way of life, it must be expected that current pressures for globalisation, in that they are perceived as western, will not be uniformly welcomed. Therefore, some resistance to aid programs that are perceived as serving western global capitalism must be expected. Furthermore, there will be people who view the recent financial crisis and the hardships it has engendered, as the consequence of westernisation. Then there are communities that, because of terrain, have had little or no experience of westerners, in spite of colonial pasts.

In organising programs of assistance, attempts are made to provide for the security of aid teams. But it does not follow that the people with whom they work will always be supportive of the changes being pursued. It should be made clear that the prime purpose of assistance in general education and TVE is empowering people to make more informed choices about their lives, both by increasing their options and by assisting them to evaluate the alternatives. It follows that educational programs assume a high level of importance in the assistance that countries such as Australia choose to deliver. Green (1997, p.186) suggests that:

> *The major dilemma for governments and educationalists in the coming decade will revolve around how to reconstruct cultures of citizenship and nationhood in ways which are appropriate to modern conditions and conducive to both a deepening of democracy and a strengthening of social security.*

For a decade or more an international debate has continued into the relative returns to general verses vocational education investment, and how aid funding can best be allocated to achieve maximum benefits in human development and sustained poverty alleviation. The World Bank decision in the early '90s to concentrate on general education support, based on the conclusion that it was more cost-effective, has not received universal endorsement. Rather, most countries have sought to better target their vocational education assistance to programs that are designed to be cost-effective. Australia is placing increasing importance on cost-reducing strategies such as workplace-based learning, so reducing the resource costs of programs. Even so, assistance in TVE and training has constituted only about ten percent of the educational assistance budget, and over the period 1984/85 to 1994/95 suffered a relative slight reduction (Commins 1996). So it would be misleading to imply that it features as a priority in Australia's aid program.

SECTION 3: RESEARCH METHOD

> *The need to improve access by VET staff to information and knowledge necessary for high quality international activities, and for the internationalisation of VET institutions, is clearly a national priority.*
>
> *Peter Kearns and Kay Schofield, 1997*

The research has been undertaken in two stages. Stage 1 involved examination of Australia's bilateral aid-based assistance to SEAP in the development of TVE and training programs (the latter of which there were few), for the period 1980/81 to 1995/96, and the preparation of a Discussion Paper for broad distribution for comment. Stage 2 reviewed the Discussion Paper in light of feedback. This document is the product of Stage 2.

The main input to Stage 1 was documents held on file by AusAID in Canberra ACT. Searches involved cross-referencing between the electronic catalogue, annual records of official expenditure and individual project documents. The latter included project design documents, project appraisal studies, project implementation documents, interim reports, final project reports and evaluation documents. These are listed in Appendix 1. For most projects, documents on file did not constitute a complete record. The other major input was the expressed views of individuals. In some instances those consulted provided access to additional written material on projects (also listed in Appendix 1). Those people who contributed comments in Stage 1 or who provided written feedback in Stage 2 are listed in Appendix 2.

Records have not always clearly distinguished between projects for development of TVE and training, and other aid activity. In order that a program be judged as a major program, a minimum total Australian expenditure was set at A$1 million for South East Asia and A$100,000 for the Pacific region. To illustrate, neither Malaysia nor Kiribati is listed; though there was expenditure on each, the amount was small in each case.

An activity was selected for inclusion as a project if the thrust of the activity was development in-country, even if some delivery was in Australia (eg fellowships) and

- AusAID had classified it under TVE / training or equivalent, or
- if at school level, education for employment in specific industry sector(s) was a substantial part of the program as shown by the catalogue or other records, or
- the purpose was to service TVE / training delivery (eg. training of teachers for the sector or that section of the bureaucracy), or
- it was apparent from the title of the activity that the purpose was TVE / training.

The duration of project support was taken as the full period for which there was expenditure. The period includes project development, implementation and, in some instances, project evaluation.

Thus this research does not claim to have captured every activity undertaken by AusAID or its predecessor, AIDAB, which has involved in-country TVE / training assistance. In the health area, in particular, some projects not included in this study have embedded in them significant TVE activity.

Documents were examined to enable programs to be mapped by country, component projects and financial year with Australian dollar contribution. In addition, information was collected on project goals and objectives, rationale in terms of declared and underlying educational philosophy, issues, strategies, and project achievements. Particular note has been taken of difficulties and need for change to projects over time. An attempt has been made to clarify the implicit economic and educational models informing thinking in the design and delivery of assistance, and the assumptions contained in them.

In Stage 1, comments were invited from individuals, especially where there were major gaps in documented information on file, or where it was felt important to tease out the background to some of the text. Stage 2 sought broader input. Copies of the Discussion Paper were distributed to TAFE institutes across the country, to those consulted in Stage 1 and to persons on the mailing list of the Centre for the Economics of Education and Training. They were also provided upon request.

Given the need for this Report to be constructively critical by focusing on issues and strategies rather than individuals, the particular state or territory organisations, companies, TAFE institutes, universities etc. that were or are currently involved in projects, are not recorded in it. It should be noted however, that involvement has been truly nationwide, with skilled and committed contributions from all regions of Australia and groups involved in VET (TAFE providers, universities, bureaucracies, companies and private consultants).

SECTION 4: AN OVERVIEW OF THE PROGRAMS OF ASSISTANCE

> *Efforts towards internationalisation have focused, to date, on attracting fee paying overseas students. If Australia wishes to be seen as an active, quality player in what is fast becoming a global education and training market, there needs to be an effective approach to internationalisation which is much broader than this.*
>
> *Australian National Training Authority, 1997*

We estimate that Australia's total bilateral, project-based aid contribution for TVE / training to SEAP in the period 1980/81 to 1996/97 was in excess of A$192 million. The study has identified six South East Asian and seven Pacific Island nations as having been the recipients of that aid (Table 2). The distribution has been very uneven. Nearly 90 percent of expenditure was for programs in South East Asia, with 55 percent being for Indonesia. The Philippines received the second highest proportion, being 25 percent. Just over half the amount for the Pacific has supported the Papua New Guinea program.

TABLE 2
TOTAL AUSTRALIAN CONTRIBUTIONS IN A$ THROUGH AIDAB/AusAID FOR VET PROGRAMS IN SOUTH EAST ASIA & THE PACIFIC 1980/81 TO 1996/97

SOUTH EAST ASIA		PACIFIC	
CAMBODIA	6,444,036	FIJI	1,808,606
INDONESIA	105,822,323	PAPUA NEW GUINEA	11,170,108
LAOS	5,111,281	SOLOMON ISLANDS	2,537,435
PHILIPPINES	47,765,494	TONGA	2,582,226
THAILAND	3,685,059	TUVALU	306,254
VIETNAM	1,416,657	VANUATU	557,102
		WESTERN SAMOA	2,823,374
TOTAL	**170,244,850**		**21,785,105**
		COMBINED TOTAL	**192, 029,955**

Australia's TVE / training contribution should be seen in the context of its support for education as a whole. In 1995/96, a year for which AusAID has published aggregate figures on its education aid to each of the countries listed in Table 2, the total was A$174.5 million, nearly twelve times the TVE / training project-based expenditure to those countries. But because the latter has been targeted at government administration and teaching institution level, we see it as having the potential to effect substantial change though flow-on effects.

Figure 1 maps the assistance. It can be seen that most of the assistance was provided from about 1988 onwards. And since 1990/91, funding was provided for at least ten of the country programs each year. Only Indonesia was in receipt of project-based assistance for the development of its TVE sector for the full period, however the duration of assistance to Western Samoa was nearly as long.

Appendix 3 gives a detailed breakdown of the programs by component projects, year and cost to Australia. Again, Indonesia stands out. That program has been composed of nine projects, though expenditure on the most recent, Partnerships in Skills Development, was predominantly to support investigation and planning rather than delivery.

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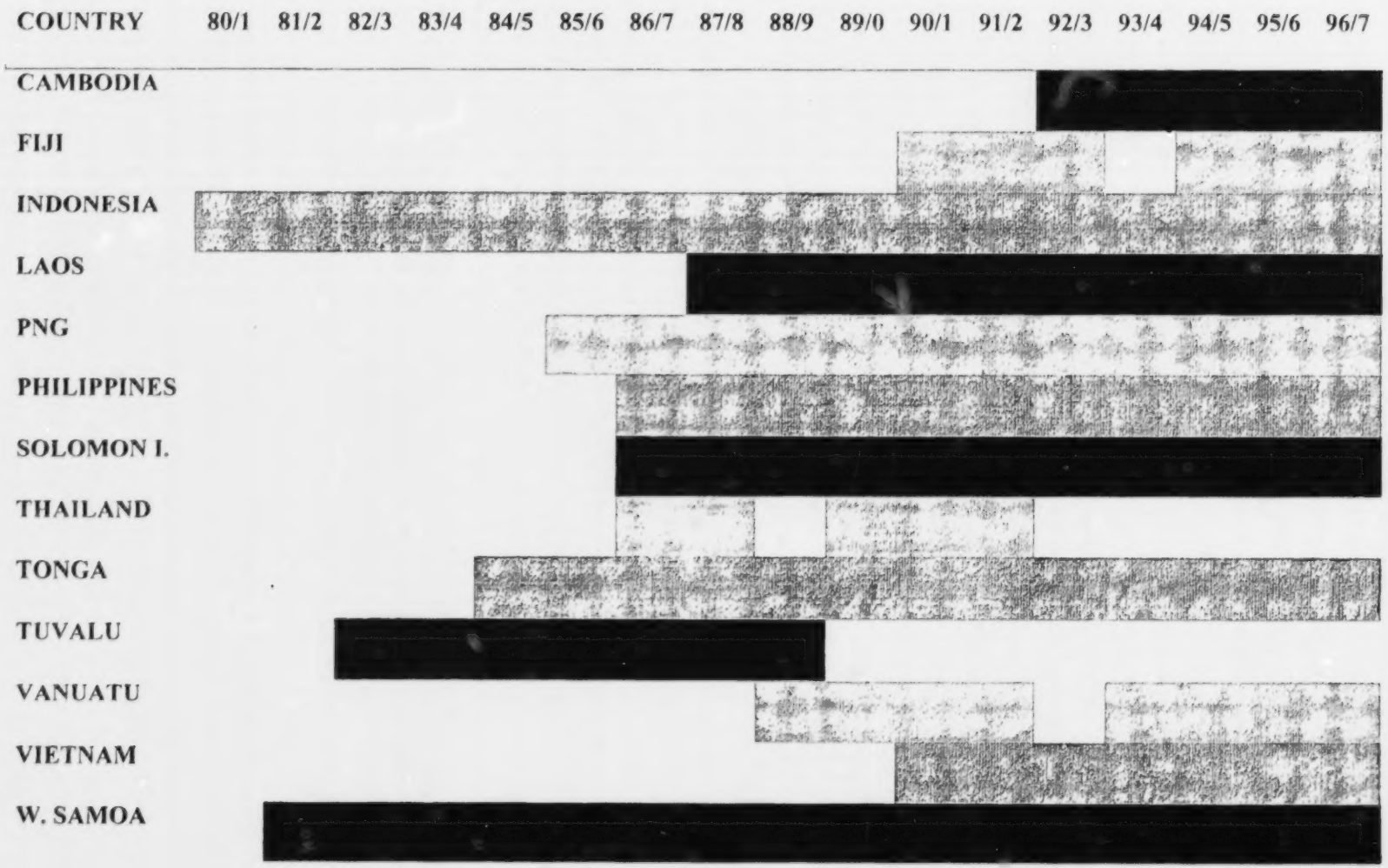
FIGURE 1 TVE PROJECT FUNDING TO SOUTH EAST ASIA AND THE PACIFIC THROUGH AIDAB/AusAID



SECTION 5: ECONOMIC AND EDUCATIONAL MODELS AND ASSUMPTIONS

> *Development studies are intended to answer such questions as What has been the role of education in determining the nation's socioeconomic, political and cultural condition? In a nation's plan for the future, how can education contribute to progress, and how can the plans provide educational opportunities for individuals and groups to fulfil their ambitions?*
>
> *R Murray Thomas, 1990*

Economic and Developmental Models

Given that TVE rather than training has been the predominant thrust of the bilateral assistance program, this section concentrates on TVE.

In examining Australia's aid program for the development of TVE in terms of purpose, strategies and effectiveness, it is helpful to model the economic and curriculum processes that appear to have been operating and the links between them, and to clarify underlying assumptions.

We outline the process of change that we see most Third World countries as following in the transition from a traditional to a modern, wage-based economy. Our model recognises three major stages of development beyond subsistence but allows for observable variation within a stage. In common with the model of Rostow (1990), it recognises a linear sequence of stages that can be distinguished by the nature and distribution of economic activity. The model differs, however, in seeing the move to a large-scale manufacturing economy as being via a resource-based stage rather than as through 'transition,' then 'take-off' to 'maturity'. Thus, at the early stage especially, and in common with Porter (1990), we place importance on the contribution of available factors of production. In the final stage we put greater emphasis on a movement away from manufacturing to a largely service-based economy than do either Rostow or Porter. Our model therefore accords with the views of Rowthorn and Ramaswamy (1997) who, on the basis of a study for the International Monetary Fund, argue that *de-industrialisation is not a negative phenomenon, but is the natural consequence of the industrial dynamism of an already developed economy*. Employing the model, we attempt to highlight the economic and social implications of the different stages of development for education and training.

In our model of the curriculum process we postulate that there has been a transition from a modern to a post-modern curriculum approach that can be linked to a similar transition in organisational processes generally, first in Australia, and then offshore.

The Essential Differences between a Traditional and a Modern Wage-based Economy

In traditional economies, life is predominantly rural, based on labour-intensive agriculture, fisheries and forestry, supported by small-scale, craft-based manufacture and trade. The family and the community are the centres of economic activity, as they are for all aspects of traditional societies. Economic activity is inseparable from all other aspects of the family, community and village; the skills and knowledge required to perform economic activities are acquired in an integrated and informal manner, and handed down from generation to generation.

The modern wage-based economy, by contrast, is one in which the world of work is largely separated from that of family and community. Most people are paid wages or salaries and they 'go' to work – although e-commerce and the like are producing some reversal in this. They are employees (or employers) on the one hand, and customers and consumers on the other. Jobs are defined in occupational terms, with their defined areas of skills and knowledge. Workplaces tend to be large-scale and capital-intensive. Agriculture is based on estates and broad-acre farming. Much of the acquisition of the skills and knowledge required for economic activity is structured and formal. This learning takes place typically away from the workplace – though this trend, too, is seeing some reversal.

Traditional and modern, wage-based economies have their own concepts and terminology. 'Unemployment', 'annual leave', 'superannuation' and 'credentials' belong firmly with the latter.

Education and training are pre-requisites for entry into the modern, wage-based economy and credentials have arisen as a consequence of the separation of education and training from work. They are a major means by which job-seekers flag to prospective employers that they have the necessary skills and knowledge, and by which employers select from among job seekers those they think will be best suited for the jobs on offer. The more desirable the job or the fewer the jobs on offer relative to the number seeking them, the more important credentials become. It follows that, in the transition from a traditional to a modern, wage-based economy, education qualifications provide a bridge.

During transition, the relationship observed between unemployment and education level is quite different to that typical of a developed economy. In the latter, the unemployment rate generally falls consistently with the level of education. In counties in transition, that still have a significant traditional sector, the pattern is different. A fairly clear minimum level of education necessary for entry to the modern wage sector will have become established. Those who undertake schooling but who do not reach the minimum, will typically return to the traditional economy if unsuccessful in gaining employment in the modern wage-based one. But those who reach or exceed the minimum consider that they have made the transition; they tend to hold out for jobs in the wage sector rather than return to traditional employment. In effect, formal education and training and the qualifications they bestow, tend to operate as one-way tickets out of the traditional sector. As a consequence, education programs that have sought to raise skill levels in the traditional sector, and hence, to retain people in the sector rather than have them leave to become urban unemployed, have seldom been successful.

Stages of Development

Economic development can be thought of as consisting of three stages – (1) resource based development, (2) large scale manufacturing development, and (3) advanced manufacturing and service-based development.

Resource-based development is based on the extractive industries – oil, natural gas and minerals development, commercial forestry and fisheries – and in the opening up of broad-acre agricultural land, and the development of cash crops. It typically begins as an enclave in a largely traditional

economy. It is generally capital-intensive, with a high level of mechanisation, a small labour force, and a low level of demand for education and training – the skilled component of the workforce having received education and training either as expatriates or as nationals studying abroad.

Large-scale manufacturing-based development is usually urban-centred and makes use of a large pool of labour drawn from the traditional sector. Manufacturing is typically of the mass-production, low value-added, highly labour intensive, assembly-line variety, with output in the form of electrical and electronic appliances and components, textiles, footwear and apparel, toys, fabricated metal and motor vehicles. Export is crucial, since more is produced than the domestic market can absorb. Manufacturers operate with large workforces organised along Taylorist lines. The capital and expertise required to set up and run them are generally imported, but often as joint ventures with local enterprises. Investors are attracted by low wage levels and, regrettably, often by lax labour regulations. Jobs are highly fragmented. Skills required are highly specific, and dependent on basic literacy and numeracy. Priority in education is on achieving high participation rates at primary and junior secondary school levels. Training is typically also basic in that much of labour is engaged in semi-skilled repetitive work. However, enterprises have a demand for skilled labour; and a persistent shortage of skilled trades-persons and technicians is a common feature of economies at this stage of development. Higher level technical education typically lags behind general education, partly because it is more expensive to provide and because it is less popular in conditions of growing economic prosperity.

Rapid economic growth delivers rising wages and improved working conditions. As unit costs rise and competitiveness declines, so too does profitability; foreign capital begins looking elsewhere for cheaper sources of labour in which to relocate production activities. The drive for the late-stage 2 developing country is to move to an economy based on advanced manufacturing and services. Productivity increases are sought, no longer through a large pool of cheap labour but through increased automation, alternative production systems such as just-in-time, and flexible production delivering specialised goods for individual clients. In the transition to Stage 3, flexibility is increased through downsizing, with outsourcing of many of the functions to contractors. Increasing levels of added value and returns on capital are pursued through research and development, and improved marketing, finance, and transportation and distribution. Industries to emerge at Stage 3 of development typically include advanced electronics and telecommunications, new materials, aerospace and biotechnology. The skills and knowledge required are considerably more advanced and diverse than at the previous stages of economic development. So, too, are the demands on education and training.

As development progresses, the proportion employed in agriculture and other resource-based activities declines to, eventually, as low as three or four percent. The proportion engaged in manufacturing rises to a peak during the second stage, typically round 30 or 40 percent, then it too declines. But the proportion working in service provision continues to grow throughout, with up to four-fifths of the labour force accounted for. Employment in service industries grows in areas such as education, health and community services, banking and finance, transportation, tourism and hospitality, wholesale and retail, personal and domestic services.

In employing a model such as this, it is tempting to view a country as wholly at one stage or another. But this would be misleading – there will commonly be economic activity of itself more typical of an earlier or later stage. This is particularly true where a country is large and diverse – economic development is unlikely to be uniform. Notwithstanding, as a whole, the economy will conform to one of the main stages. The trend suggests what will be the dominant thrusts in industrialisation, and in education and training. But the 'spread' may give clues to other pressures – from groups who view themselves as disadvantaged economically, and from others who demand higher quality services to support their leading edge activity.

Global financial markets, trade and industry are clearly both major drivers and constraints on the development process. A country's particular circumstances will make it more or less exposed to the impact of these forces. Nor do these forces fully determine the path a country will follow in the development process. Its established cultural values and institutions, its human and physical resources (natural and created), and its geography will allow certain choices and disallow others, and will pre-condition it to develop in certain directions. It follows that no developing or developed country can be fully equated with another – each is unique. Indeed, whether a country makes significant 'progress' from an earlier to a later stage, or remains indefinitely at Stage 1 or 2 might or might not be the result of policy deliberation and decision.

South East Asian Countries

For counties in the South East Asian region, the model as discussed above is fairly robust. Singapore already has reached the third stage of development. Malaysia has much of its economic base in the second stage, with components of its economy more typical of the other two stages. Countries such as Indonesia, the Philippines and Thailand are better represented as in the process of moving to Stage 2, while Laos and Vietnam can be thought of as still attempting to consolidate the transition to Stage 1.

The model implies that Laos and Vietnam will have an urgent need for assistance with general education including literacy and numeracy, with a less urgent requirement in the area of vocational education and training. It further suggests that countries, such as Malaysia, that have reached a fairly advanced stage of development, will have developed their basic vocational education systems and will look to businesses to be important sources of training. Their main concern will be at the tertiary level, in the development of an increasing pool of professional people.

But the countries seeking to develop their manufacturing base on a large scale will be constrained by a lack of sufficient numbers of skilled nationals to train others, suitable teaching materials, and funds with which to purchase them from other countries. It follows that development assistance in TVE, in contrast to basic education, will focus predominantly on countries in this group. The model implies that skills-development will, in the main, be in basic vocational ones, but that there will also be some demand for more advanced technological skills development.

Accordingly, in the case of Indonesia, the majority of Australia's bilateral aid-based assistance to the region, for the development of vocational skills, has been for TVE at secondary level, with

some assistance provided at the more advanced level, in the development of the polytechnic system. Assistance to the Philippines has, however, been for middle level manpower development at post-secondary level, consistent with the Philippine Government decision to integrate basic technical and vocational skills development with general secondary education. Australia has also provided assistance to these two countries in agricultural skills development. As noted (above), most young people do not return to the traditional economy once they have undertaken some secondary education. It follows that agricultural studies should be at a level consistent with the demands of the agricultural sector as part of the modern economy. In Indonesia, assistance to secondary school-based TVE has included agriculture; in the Philippines, assistance has again been at the post-secondary level.

Countries of the Southern Pacific

Countries of the Southern Pacific do not align so closely to the model. Certainly, Papua New Guinea and the Solomon Islands are traditional economies in transition to Stage 1. But some of the smaller island communities such as Tonga and Western Samoa, while they conform to Stage 1 by having much of their earnings generated from large plantations, have very high literacy levels, more typical of a Stage 3 or advanced Stage 2 economy. The island nations do not attract investment because they have neither pools of cheap labour to service large-scale, mass production nor ports suitably located for trade in international markets. Domestically, pursuit of development is commonly seen as a two-edged sword that can threaten the natural environment and national identity. As Keen (1998) expresses the issue:

> *The Pacific perspective on environment and development reflects a desire to progress economically while maintaining the strong links between people and their environment through the encouragement of local participation in resource management, the support of customary resource tenure, and the protection of fragile island ecosystems.*

'Constrained' participation in the global economy is sought so as to gain some of the benefits, such as improved health care, education and material possessions; but the options are few. Though there has been secondary industry development, tourism appears to provide possibly the only avenue beyond agricultural products for some of the communities.

In Papua New Guinea and the Solomon Islands most people continue to depend on subsistence, acquiring the necessities of life through farming or fishing, traditional skills such as local crafts and bartering, with only minimal participation in the market economy. It follows that education and training will be concerned primarily with literacy, numeracy and basic technical skills. Both countries are rich in mineral reserves, so there is potential employment in the mining industry for some, and in support industries for others. With a population in the order of five million, Papua New Guinea has the potential to develop industrially. However, the population of the Solomon Islands is very small, and agriculture and forestry are expected to remain the mainstays of the economy. Not surprisingly then, assistance to Papua New Guinea has been concerned with development of technical skills at secondary level along with improved literacy and numeracy. In the Solomon Islands, support has been for the development of a post-school polytechnic. In this respect it has had more in common with assistance elsewhere in the Pacific region, where

countries have been primarily concerned with retaining their academically more successful young people by having them complete more of their general and vocational education at home, rather than off-shore. These countries also view a home-based post-secondary institute as a symbol of national identity.

A Consideration of the Assumptions

Australia's assistance has assumed that secondary-based TVE can provide skills that will be sought after in the wage-based economy. It has also assumed that, provided agricultural skills are complemented by a broader set of life skills, an agricultural career in the market economy is achievable.

The irreversibility of the move from the traditional economy, for those who undertake some secondary education, was first noted by Foster (1995). He saw that, in Africa, colonial experience taught that education is the conduit to urban-based and better paid employment, with the result that agricultural education at school level was failing to encourage those who undertook it to return to the farm. This disinclination he found to be, not the result of disdain for farming, but the consequence of population pressures and land fragmentation, the relative lack of amenities in rural areas, the non-availability of suitable cash crops, and restrictions associated with traditional land tenure. Foster's study has continued to influence debate about school-based agricultural education in developing countries. Yet, as he acknowledged, primary production with more efficient and sustainable methods is viable. Where the amount of employment in other sectors of industry falls well short of supply, acquisition of skills in agriculture and aquaculture appears to have greater potential for poverty avoidance than do many of the alternatives. For Foster, this meant that action needed to be directed at the farmers themselves to induce movement to more modern practices rather than expecting schools to be the vehicle of change.

Australia's assistance in agriculture has been mainly at post-secondary level rather than at school level, and appears to have provided an acceptable and viable route for returning to the community while also working in the market economy. That is, it has equipped people to work as advisers in rural reform as well as to operate farms delivering to the market economy. The importance of promoting improved agricultural practices has been emphasised by the Asian Development Bank. Between 1970 and 1990 agriculture growth averaged 4.2 percent per year in Indonesia, Malaysia and Thailand (Asian Development Bank, p.104, 1997). The Bank notes:

> *In the early 1960s per person caloric intake was below minimum nutritional standards for all Asian economies except Hong Kong, Malaysia and Singapore, but by 1990, only one Asian country, Bangladesh, remained seriously below the standard. In most Asian countries, increases in domestic food production, rather than imports, account for the bulk of the improvement. Higher rural incomes also made it much easier for the rural poor to invest in more education, and thereby to enter the nonagricultural economy. Productivity improvements released labour to work in nonfarm employment. In urban areas, reduced food prices helped increase the value of real incomes. Strong agricultural production helped stabilise prices, which enhanced both economic and political stability. Thus agriculture provided an important foundation for the transition to modern, industrial societies.*

Porter (1990) sees internationally successful industries in developing market economies as dependant on basic factors such as favourable growing conditions for certain agricultural products, the availability of natural resources or an abundant and semi-skilled labour pool. Consistent with the first mentioned factor, Australia has encouraged agriculture curricula to be locally relevant. He also suggests that the technologies of indigenous enterprises will be relatively inexpensive and sourced mainly from other countries. Van Elkin (1997) demonstrated that countries in the very early stages of development are particularly well placed to imitate, and can make rapid strides in their growth while they do so.

Writers in the field are increasingly employing a low-skills / high-skills model, for categorising countries' economic direction (see Ashton and Green 1996, pp.93-94). It interprets nations as making a more or less conscious decision to pursue growth through mass-produced, low-cost items (ie. staying in Stage 2), or through highly value-added, customised products (ie. movement to Stage 3). Ashton and Green conclude that the skill levels of workers are significant factors, and that progress and growth depend on investment in people's skills. So theirs is a human capital model (see, for example, Maglen 1993).

Initially, most governments have focussed on trades, or 'technical' education as it is usually referred to. They have then shifted the emphasis to commerce and business education - aspects of 'vocational' education. Such a progression accords with the need first for major infrastructure development, as a basis for manufacturing and other industry development, and then for financial, management etc. support which can be put in place more quickly.

Nevertheless, pre-employment TVE cannot ensure that each individual will gain or even seek employment in the occupation(s) for which he or she was trained. Lewin (1993) warns, when devising strategies, to avoid ill-founded assumptions, one of which being *that almost all trainees will necessarily follow the occupation they have trained for*. In that Australia has encouraged broad secondary level programs combining general education and broad vocational education, this appears not to have been assumed.

A second unfounded assumption Lewin raises is that learning changes attitudes to different types of employment. Project documents examined in this study report that for Filipinos and Thais in particular, the acquisition of a professional qualification and a professional occupation is more highly esteemed than a TVE qualification. Given evidence of the advantages of a professional qualification in terms of relative income and minimisation of unemployment, such esteem has a rational basis (eg Maglen 1993, Gregory 1995, Grubb 1996). For the great majority however, a degree is not an option. But a non-professional qualification, while it will probably never be viewed in the same light as a degree, can be a gainable ticket to an improved standard of living, often more so than is a purely general education. Indicative, have been the large numbers of private vocational and technical schools in countries such as Indonesia and the Philippines. While a few conform to the western notion of a well-resourced private school, many do not. Yet there is clearly a demand by parents for this form of education for their children, where they are unable or do not wish to access the fewer publicly funded TVE schools.

Much of the impetus for national governments' decisions to seek assistance in development of their TVE sectors has been the view that current systems have failed to deliver a sufficiently large and suitably skilled pool of labour as a basis for industrial and thus economic development. The conclusion is based on the assumption that it is the level of human capital that is limiting the level of industrial and thus economic activity, not some other factor. Foster argued that rapid educational expansion in stagnant economies can result in unemployment rather than economic growth. Similarly, Grubb and Stern (1989) have pointed out that increasing the pool of skilled labour increases the competition for jobs; if these do not also multiply, the result may be a reduction in already low wages, benefiting the enterprises perhaps, but not the individual selling his or her labour.

It might be questioned whether there is a relationship between the level of wage reductions in regions of Indonesia as a result of industry contraction, and the provision of TVE; and if so, what, if any, are the curriculum implications.

Australia's advice has emphasised the need to research national and regional labour demands and to establish a better match between provision and the labour market; bureaucracies and providers have been assisted in acquiring the research skills. However, a third unfounded assumption suggested by Lewin is that accurate medium term forecasting of labour market demand is possible. Australia's planning advice in latter years has recognised this limitation and has emphasised a broad-brush approach nationally, combined with more detailed and continuous assessment of the labour market at the local level.

The assumption remains that, with research and planning, industry will follow the availability of skilled people, and that with enhancement of technological skills, the technologies in the workplace will adapt to utilise the available skills, with economic benefits to the individuals, enterprises, and the country as a whole. Ashton and Green (*ibid.*) consider that the new industrialised economies of Asia have been successful in changing their TVE systems in line with the demands of the productive system and see an opportunity for other nations to learn from them. Whether the systems have predominantly delivered the skills that will remain in demand following the collapse of many of those businesses, is very doubtful. The next decade will provide a major test of the methods that Australia has promoted in South East Asia for labour market research as a basis for TVE planning.

For rural areas that are distant to urban centres, and where secondary industry and services have yet to reach, the challenge is extreme. Governments may wish to promote regional development for accessing natural resources or in response to other pressures. They may encourage industry to locate there and seek also to improve the employability of community members through skills development. But the commonly experienced market failure through imperfect knowledge is acute – which skills will there be a market for? When new industries do establish they may choose to import workers with the requisite skills. Australia's assistance in improving regional TVE research capacity should assist, but the risk of mismatch and disincentive remains, both to individuals to undertake pre-employment training and to enterprises to establish. A further issue,

emphasised by Grubb and Stern (*ibid.*), is that where skills are developed to give a high level of match to attract particular businesses, enterprises may utilise them through relocation rather than expansion, contributing nothing to economic growth. Of course, if the move is from an urban area there can be other benefits. Again, Australian assistance has assumed that, in spite of these complexities, benefits can accrue to individuals in remote regions through pre-employment TVE.

In developing the Partnerships Program effort was made to recognise the increased risks as a consequence of the crisis in the country. A series of pilot programs were developed as test cases, to become models if they prove successful. For instance, those in developed regions equip people to a level consistent with gaining work in industries using advanced technologies; those in minimally developed regions focus on repair and maintenance skills development, for which there is a demand. And in regions in which hospitality is a significant industry, advanced catering skills are the focus, but in less developed regions learners are assisted to be self-employed roadside caterers.

Indeed, income generation as an employee or in traditional agriculture are not the only possibilities; for many people in developing countries self-employment (or working as an entrepreneur as it is commonly referred to) can be an option and, for some, the only one. Australia's assistance has included support of courses in traditional arts and crafts. These can be viewed as cultural factors that a nation can draw on to assist development, especially where it is looking to build its tourism industry.

Australia's essentially pragmatic approach has assumed that, regardless of the strategies employed, they will fail if they are not 'owned' by stakeholders in-country. Thus programs have sought to work in with the individual country's policies, an important contributor to success in the experience of Oxtoby (1993). They have attempted to strengthen existing systems rather than to change them fundamentally. This can be contrasted with the approach of some donors whom Abrokwa (1995) sees as having:

> *...tended to dictate implementation policies, which often has produced formidable barriers to successful implementation in the countries involved. Many such projects have collapsed or been abandoned once external funding ended.*

Alleviation of Poverty

Has it been assumed that TVE assistance will contribute to the alleviation of poverty, to the emancipation of women, and to worthwhile employment for young people who, otherwise, would have had little hope of gaining it? Based on their extensive study of vocational education assistance programs Middleton, Ziderman and Van Adams (1993, pp. 52-53) conclude:

> *The argument that skills enhance productivity provides the firmest justification for training, and the record shows that training does increase productivity, as measured directly and in terms of increased earnings. Advocates, however, also have expected VET, particularly preemployment vocational schooling, to achieve additional, primarily social goals. These objectives have included creating a reserve of trained workers to stimulate growth, improving the employability of the disadvantaged, providing a path to wage employment for women, and diverting*

young people from aspirations for white-collar employment and higher education. The record on whether VET has fulfilled these objectives is decidedly mixed.

Has Australia's approach in some way sought to improve the probability of success? The issue has policy implications as a consequence of the Australian Government's acceptance of the Simons Committee 1997 recommendation, such that the nation will focus on assisting developing countries to reduce poverty through sustainable economic and social development. Furthermore, the economic crises in its region, with the consequent increased level of suffering amongst ordinary people, makes it even more important that assistance is maximally effective in helping the poor.

Given that Australia's assistance for TVE has been but 'a drop in the ocean' in relation to the needs of the poor of South East Asia, it would be preposterous to assume that it has had a direct impact on poverty in the region. What is more, the experience of those who have participated in program delivery suggests that children and young adults from the poorest families are seldom among those who access it. Instead, the aid must be judged on its indirect effect on poverty through assisting a country to develop its economy as a whole or on a regional basis.

Curricula

In 1985 Okwuanaso reviewed studies of vocational education in developing countries and, on balance, presented a bleak picture. Common themes were a need for curricula that are relevant to national needs, for a greater range of courses and for opportunities for work experience. Mulder, in 1997, wrote of the tensions that exist in developed countries between the market for vocational education and the market for labour, giving rise to problems which systems have variously sought to address. Courses may not provide adequately for either general skills-development or specific skills-development by neither delivering problem-solving, productive and meta-cognitive skills, nor linking to the work that students will later undertake. The spectrum of qualifications provided may bear little relationship to the demands of industry. Given what appears to be an enduring record of inadequacy it is pertinent to ask whether Australia's assistance has sought to address these issues.

Our research suggests that project designs, and individuals involved in project delivery, have been unequivocal in claiming that there are certain characteristics that a country's system of vocational education must acquire if it is to be effective economically and socially, *viz.*

- supportive industry personnel who advise on expected manpower and skills demands, and who provide relevant workplace-based learning opportunities;
- strongly committed bureaucrats and school principals who have modern management skills;
- curricula and materials for the development of employment-related skills;
- teachers who have, not only a theoretical knowledge of their field, but also the technical skills and the ability to teach those skills;
- access to the relevant technologies for learning purposes, either within institutions or in industry.

Programs have sought to assist countries to pursue them. Regrettably however, our research suggests that not all of those individuals who have participated in project delivery have been similarly conversant with current educational strategies aimed at achieving them. Yet, as objectives they are not unique to technical assistance projects. They are also characteristics that are sought in vocational education in Australia. Capability in designing, selecting and applying strategies are most easily developed in education programs at home.

We suggest that one way that Australian aid in this area can improve is for service deliverers to put more effort into developing people with the relevant capabilities. In addition, AusAID might place greater stress on those capabilities when awarding tenders.

Curriculum and Organisational Models

During much of the 1980s Australia in its projects advocated a curriculum model for vocational education essentially the same as that employed in TAFE – a version of the Taber and Wheeler rational model (see, for example Smith and Lovat 1990) commonly referred to as the systems approach. It assumed that a controlled and orderly, albeit cyclical process of consultation, development and review would achieve curriculum in accordance with the host country's objective of a suitably skilled workforce. Rational modernism also underpinned system reform. Projects sought to build bureaucratic structures for TVE that were reminiscent of Australian technical education departments in the 1950s and 1960s. Emphasis was generally on achieving responsive, efficient and incorrupt bureaucracies to replace ones bearing the cultural legacy of colonialism. The model for a vocational education system can be viewed as part of a larger one for an orderly democratic state – assistance to the Philippines for the development of its vocational education system quickly followed the fall of the Marcos regime, and initially sought to achieve "modern" rational solutions.

By 1990 post-modernism (see, for example, Hatch 1997) had found its way into thinking in Australia about curriculum and about its VET sectors. The old state education departments were reforming to provide for more autonomous schools and colleges. Regardless of the political persuasion of governments, public, supply-driven models of VET were being displaced by market-driven ones. Given that governments in SEAP were attracted to these developments it is hardly surprising that similar thinking was starting to permeate projects. However, both at home and abroad it was recognised that the potential for imperfect information to undermine the ability of suppliers and consumers to make rational choices meant information flow was paramount.

This study sees a single and tacit curriculum and organisational model as having displaced the rational ones, integral to which has been two-way communication – between provider and industry and other members of the community, between industry and the bureaucracy, between provider and provider, and between provider and bureaucracy. The model represents curriculum and the system of vocational education responsible for it, as interdependent. Each participant in the network, but especially the provider as the marketer, is seen as learning from the network, but

also from his/her experience and from research. Such networks can be envisaged as enmeshing and interacting with the business webs that Reich (1992) describes as replacing monolithic corporations. This post-modern view of organisations places emphasis on fluidity, communications technology, message and understanding rather than on order and structure.

What this paper shall call a network-driven heuristic model easily accommodated competency standards. These became part of what is communicated centrally, followed by, at the local level, communication on how they should be selected, adapted and enriched to meet local needs.
Implicit is a number of assumptions:

- industries are sufficiently organised to be able to generate and keep up-to-date suitable standards;
- standards will encompass the needs of small, low technology enterprises as well as the technologies of giants and all others in between;
- people in communities will be willing to liaise with providers;
- that at secondary level, the general education needs of students will not lose out to the learning demands of competency standards;
- the parties involved can cope with more local decision-making regarding some aspects of curriculum but less regarding at least some of the intended learning outcomes;
- the approach is compatible with diverse cultural settings and can accommodate the different perceptions, practices and expectations so as to be truly inclusive.

It is the view of many team members that, while some ideas have dominated thinking, Australian projects have been particularly responsive to recipients' needs and their socio-cultural contexts. As evidence, differences have been discovered in the way the model has been applied within Australia and offshore. At home, inter-provider linkages have not been seen as important; in fact the role of the provider has become secondary to the role of the consumer. Strengthening has been demand-side focused. By contrast, projects have sought to strengthen the supply-side, centrally, regionally and locally. The difference probably reflects the contrasting levels of development of the sectors in Australia and SEAP. Then, in Australia, the distinctions between public and private providers are being diminished; in SEAP almost no attention has been given to private providers. Rather, elements of private provision and entrepreneurial modes of operation have been assisted in the public sector, an example being centres of commercial operation set up and operated in Indonesian TVE schools. Thirdly, promoting interdepartmental dialogue has been of much higher priority in projects because boundaries between the relevant ministries (eg. education, labour, industry and trade, agriculture) have usually been found to be dysfunctional and a hindrance to program objectives.

On the other hand, questions remain about the cultural congruence of the model. It depends on pro-active consultation, and the critical consideration of what are potentially diverse and competing views. Those consulted will include both acknowledged authority figures and those who are not. Will the latter be willing to express views contrary to those of the former where there is a tradition of respect for authority and a high degree of conformity to a relatively passive cultural norm? Teams in Indonesia have found that communication processes are often much more formal and slower than ones Australians are accustomed to. Irwin (1996) contrasts the communication styles of low-context cultures (eg. Australian) and high-context cultures (eg.

Asian). He sees low context cultures as relatively informal, egalitarian and present and future focussed; the high context cultures he sees as relatively formal, hierarchical, rooted in the past, relying less on verbal communication and more dependent on shared experience and implicit messages. Notwithstanding, there is anecdotal evidence for instances of improved relationships between institutions and their communities as a result of Australia's assistance; but whether these will catalyse similar developments system-wide is less certain.

The effectiveness of local community networks in influencing curriculum decisions should be evaluated by truly disinterested experts in the area; the research should examine economic relevance, community inclusiveness, and responsiveness. Attempts should be made to establish whether there are relationships between cultural factors and strategy effectiveness, and if so, what these are.

There are questions too, whether the willingness with which Australia has supported the host nation's preferred curricular direction, has inhibited the delivery of what might have been, on occasions, advice on better alternatives. Capability in science and mathematics, technology and the English language all appear to be of growing importance as the global economy becomes more pervasive. They are at the heart of the so-called key competencies. But they are more than that. Those people who acquire and master them have the opportunity to transcend the merely competent within the context of the global economy, to give full expression to their creativity and talents, and to have them recognised in the world arena. They provide the basis not only for people to have some appreciation of economic and technical forces that are shaping their lives, but also for them to respond more effectively, and to gain greater benefit form the changes they bring.

Capabilities in science, maths, technology and the English language of those who have undertaken TVE could be compared with those who have undertaken a similar length general education, along with an exploration of possible effects on the nature of subsequent employment.

SECTION 6: ASSISTANCE TO INDONESIA

The Bank's Operational Strategy for Indonesia aims at raising the country's international competitiveness by improving factor productivity. This is in line with the Government's development objectives of efficient, equitable, and environmentally sustainable growth. The strategy includes (i) improving physical infrastructure; (ii) developing more productive human resources; and (iii) integrating sustainable resource management. Human development is essential for creating capacity to absorb and/or develop new technology and for promoting more efficient production. While pursuing growth objectives, sustainable resource management should be ensured to prevent environmental degradation from eroding factor productivity. Poverty reduction and improving the status of women are regarded as integral parts of improving factor productivity.

Asian Development Bank, 1996-97

Background

Indonesia is the fourth most populous nation in the world, with a population of about 200 million, 45 percent of whom are under 20 years of age. It is composed of 13,000 islands and has a tropical, wet climate and, in less developed regions, dense rainforest vegetation. Rapid economic growth over the past 25 years or so has been accompanied by a drop in those living in poverty from 60 percent in 1970 to 14 percent in 1993. Concurrently there has been a marked migration to urban areas which is expected to continue. The Government of Indonesia has seen development of its education and training system as fundamental to the country's growth and improvement in living standards.

A policy and planning framework is provided for education and training through the Indonesian Government's periodically released major planning documents, of which Pelita IV and Repelita V and VI have had significant implications for Australia's VET assistance. A philosophical underpinning is provided by Pancasila, a set of values or beliefs embedded in the 1945 Constitution. Impacting on this overall framework have been changes in Indonesia's economic circumstances, as happened with a fall in the early '80s in the price of oil, a major export commodity. In addition, Australian budget cuts in the '90s have necessitated adjustments to the program. This analysis relates to the period up to 1996-97 and so does not deal with major upheavals, economic, political and cultural, since that time. Any subsequent study would have to include consideration of the impact of these events.

The education system consists of six years of primary school, three years of junior secondary school, three or four years of senior secondary school depending on study area, and post-secondary education. Most of TVE is provided at senior secondary level though a small proportion of students enter junior, mainly rural technical and home economics schools. At senior level, TVE is provided through a series of schools specialising in different industry areas. Until recently schools offering 'technical education' (engineering trades, building and agriculture) have been distinguished from those offering 'vocational education' (business and

commerce, home economics, social work, industrial crafts and fine and performing arts). Collectively they can be distinguished from both general senior secondary schools and skills training centres by combining general education and vocationally-specific education. Higher education and advanced TVE are provided through polytechnics, teacher training institutes, universities and academies. The system includes public and private sector providers at the various levels.

Administrative responsibility for education is vested with the Ministry of Education and Culture, the Directorate of Technical and Vocational Education having responsibility for TVE development including polytechnics. In addition, the Ministry of Manpower and the Ministry of Industry and Trade have responsibilities in the area of training. Very specific, short-term courses are delivered by post-secondary skills training centres.

The Program

As shown in Appendix 3, Australia's aid program to Indonesia through major TVE projects over the period 1 July 1980 to 30 June 1996 has involved a total expenditure in excess of A$105 million, over $101 million of which has been allocated to an integrated program of assistance in the development of Indonesia's secondary TVE and polytechnic system. Aid has been supplied mainly in the form of long and short term advisers in management, teaching, curriculum development, infrastructure etc., fellowship programs for study in Australia, and some equipment and materials. To complement Australia's inputs Indonesia typically has funded facilities and in-country transport, and has met overhead costs, other materials costs and replacement costs for Indonesian staff in training. The aid program is composed of a series of projects, *viz.*, IATEP, IATVEP A, IATVEP B, Commerce Polytechnics, Second Indonesian Polytechnics and latterly, Partnership in Skills Development. It is expected that assistance will continue well into the next century through the latter component. The program is described below, in terms of rationale and major objectives, inputs, activities and outputs.

IATEP

Australia's program of TVE assistance is generally viewed as having commenced in 1971 when Australia provided an adviser to the Directorate of Technical and Vocational Education. Various initiatives were formally brought together in 1980 as the Indonesian Australian Technical and Vocational Education Project. The words "and Vocational" were subsequently dropped and the project became known as IATEP. The level of assistance and project approach were based on the belief that Australia's contribution would be most cost effective if it were co-ordinated and if it sought to build up from a few key inputs, giving flexibility to achieve credible project design.

With extensions, IATEP continued to 1989. Its initial brief was to contribute to an improvement in the skills of technical and vocational teaching staff, to increase the number of qualified teachers available, and to improve, indirectly, curricula and management practices. These objectives reflected the inadequacies of the TVE system – lack of practical skills and industry experience of teachers, lack of capacity to absorb Government's projected increase in enrolments, curricula which did not relate to the needs of industry, and poor management practices, centrally and locally. Assistance commenced with the Technical Teachers Upgrade Centre, Bandung, the

new Vocational Teachers Upgrade Centre, Jakarta, the Senior Technical School, Cilicap, and the Directorate.

A responsibility was added in 1987/88 for the development of three Regional Centres at Medan, Surabeya and Ujung Pandang, to expand the provision of teacher development services. In 1988/89, IATEP was required to assist in implementing current policies under Pelita IV, to *transfer skills in subject knowledge, planning and implementation to the Indonesian counterparts*, to provide transition for Pelita IV to Repelita V by assisting with the planning of policy for the national development of TVE for Repelita V, and to determine the assistance required for implementation of policy in 1989-93.

A pre-service, three-year diploma was introduced at both Teacher Upgrade Centres as a strategy to achieve a rapid increase in the number of trained teachers. Advisers on site in Indonesia and fellowship programs in Australia were the main vehicles for achieving change. An evaluation in 1985 found that the project had given especial focus to developing practical skills and teaching methods of staff and trainee teachers, complementing major Indonesian, World Bank and Asian Development Bank provision of facilities and workshop equipment. An appraisal study in 1989 considered that the two Teacher Upgrade Centres were *able to provide well trained staff and excellent support services for outreach activities. Experience for some years has shown that schools receiving this integrated assistance make considerable improvement.* It considered also that the three Regional Centres had been successful in providing upgrade courses at the local level, resulting in a sense of ownership. The adviser to the Directorate of Technical and Vocational Education acted very much as Assistant to the Director. This role was seen by the project managers in their 1988 report as enabling the project to contribute to major curriculum changes (Curriculum 1984) and the initial planning and development of the commerce polytechnic system (see below). In 1986, additional advisers were located at the Directorate given the success of the approach.

Over the period of IATEP, enrolments increased from about 500,000 to 1.1 million and teacher numbers almost doubled to 86,900.

IATVEP A

Emerging during the period of IATEP, had been a special commitment by Australia to the eastern provinces of Indonesia, because of their relative lack of development and their greater proximity. The Northern Territory Department of Education, with funding from the Territory Government, from 1973 had operated a student and teacher exchange program with institutions in those regions. These commitments and relationships together provided a basis for the Indonesia Australia Technical and Vocational Education Project A (IATVEP A).

The goal of IATVEP A was to contribute to the development of a network of resource school clusters for integrated senior secondary technical and vocational school improvement. There were four components of activity: upgrading selected schools to become resource schools through support to other schools, improved management, curriculum, community links, student work experience, and locally generated funds; improving the management and leadership of provincial

offices of the Directorate; assisting the Directorate to develop policy for school integrated development and a framework for responding to provincially identified needs, and with planning, monitoring, evaluating and decision making; and improving Teacher Upgrade Centres to provide better support to targeted schools. Resource clusters were in Ujung Pandang, Ambon, Kupang, Jayapura and Materam. Aid would be through provision of advisers, equipment, training and some support costs.

A review in 1993 suggested that IATEP A was successful in improving the quality of the 21 resource schools – in appearance, management, libraries, functioning equipment, and attitude of staff and students. This was seen as resulting from locally-based adviser ability to deal with micro-management issues. There was less evidence however, for learning having spread to other schools in the clusters, in part probably because they lacked the resources to effect the changes. There were also doubts about the likelihood that resources for learning material development would be shared with other schools instead of being appropriated for host school purposes. Input within the Directorate had supported the initiative but there was a need to link more effectively with other aid projects. More involvement of the Teacher Upgrade Centres was seen as having the potential to increase effectiveness.

IATVEP B

The Indonesian Government's belief that Australia was able to assist it to make fundamental changes to the operation of its TVE system was demonstrated in the agreement to proceed with the Indonesia Australia Technical and Vocational Education Project B (IATVEP B). The two projects, IATVEP A and IATVEP B, ran for the major part concurrently, over the first half of the 1990s, the latter's central focus complementing the former's regional thrust. The Government saw a need for improvements in management practices at all levels – collection and use of planning data, the relevance of curriculum and industry involvement in its development, and numbers of able teachers to supervise teacher trainees and junior teachers.

The objectives for IATVEP B were to create and manage a system-wide human resource development plan and improve the Directorate's capacity to satisfy its training needs; to improve administration and management through a system-wide Management Information System (MIS) and inventory of buildings, furniture, and equipment together with a maintenance system; to improve the system's ability to develop curriculum relevant to employment needs; to improve the Directorate's ability to design and plan the utilisation of teaching/learning facilities in TVE schools; to identify equipment needs and to effect procurement and installation; and to improve the system's management capacity at provincial level and its capacity for in-school and regional inservice activities. In achieving these objectives it would be necessary to collaborate with those implementing the Asian Development Bank's loan project, VOCED II. That project sought to enhance vocational education schools in terms of quality and relevance of programs, efficiency and viability, and in providing access in remote and under-serviced regions. It would construct and rehabilitate buildings, and provide equipment, staff training and curriculum resources.

In that IATVEP B was concerned with system strengthening to achieve sustainability rather than solely putting new systems in place, its main strategy was the provision of advice combined with

more formal personnel development, plus provision of management technology. A strength of the project appears to have been the design; it was definitive in its overall objectives while providing a capacity to adapt to changes in the environment. Indeed, changes provided team members considerable challenge. On the other hand, the most important of the changes reflected the responsiveness of the Indonesian Government to the advice it was receiving, both through the Australian aid program and through those of other countries. One of them was the introduction of limited tenure for school principals with extensions on the basis of merit, reflecting the conclusion, noted during the life of the overall program, that the quality of the principal was the most significant factor in a school's success in serving its community. Another was a move to "the dual system" (Sistem Ganda), an adaptation of the German model, which aims for a substantial involvement of industry in training delivery and in determining school curriculum to achieve combined formal on- and off-the-job TVE. The third was the adoption of Curriculum 94 which, together with Sistem Ganda, was a response to industry dissatisfaction with Curriculum 1984 and its failure to adapt to technological change. Australia's team contributed to all three major policy initiatives and has assisted in progressing their implementation.

Overall, the project seems to have been very successful in achieving its objectives. Even where strategies were employed, which were ineffective, they were revisited and the required changes delivered. Achieving a system-wide computer-based MIS in particular was onerous and illustrates the dilemmas confronting decision-making in delivering assistance. Initially, a separate system was installed to keep it 'clean'; but as is common experience it looked like becoming a costly 'white elephant' and so was integrated. Then, as part of putting in place a data collection system, regional officers needed to be taught to collect, formulate and enter data and to forward disks to the Directorate for further collation and analysis. The team decided to teach the skills in the regional offices rather than separate personnel from the equipment they would be using. Training was delivered, however it was separated in time from the required task, with the result that, in most instances, the task was not carried out. It seems that regional officers had not appreciated its importance, an aspect which bringing them into head office would probably have addressed.

By project completion, the Directorate had adopted a modern, comprehensive management approach internally and externally, machinery was in place for TVE to become industry-driven, and the Indonesian Government was determined to establish a TVE system that facilitates the acquisition of industry-agreed competencies. In addition, with Australian support, the newly formed National Vocational Education Council had sponsored Indonesia's entry to the Youth Skill Olympics Organisation, symbolising its commitment to becoming a highly skilled nation.

Partnership in Skills Development

The Partnership in Skills Development commenced development at the end of the period covered by this research. The term 'program' was chosen in preference to 'project' consistent with a responsive and adaptable approach to aid delivery and it being the next step in an overall program of assistance lasting for more than two decades. Whilst that program, along with the contributions of other aids agencies, has assisted the Indonesian Government in making considerable strides towards an effective TVE system, the nature of its size and diversity means

that there is still a long way to go. Many teachers have yet to acquire experience with curricula aimed at developing competence; rather, they are used to a solely theory-based, didactic approach. Nor are they practiced at liaising with people in local enterprises in the process of developing locally relevant programs. And perhaps the greatest challenge of all will be providing assistance that will lead to teachers with the ability to work with industry personnel to achieve optimal combinations of co-ordinated on- and off-the-job learning.

Commerce Polytechnics and the Second Indonesian Polytechnics Projects

These are discussed together, given that the second was, in effect, a continuation of the first, and because the problems which overtook the second were already emerging during the first. Experiences with the polytechnic component of the aid program underscore the importance of having a high degree of flexibility in project design so that contingencies can be accommodated with minimum waste of resources. There is always potential for a shift in Government policy or priorities to render a chosen strategy inoperative, especially at the public administration level where restructures can totally change the pattern of responsibilities.

In 1983, the Government of Indonesia requested that the Government of Australia provide assistance in the establishment of a system of commerce polytechnics. The Indonesian Government was concerned that the nation lacked skilled technicians to fill high level skill/design-support and middle management positions. From this emerged the Indonesia Australia Commercial Polytechnics Project or IACPP. Swiss aid was provided for the development of engineering polytechnics. The projects built on a World Bank funded project undertaken by the Hawthorn Institute of Education (HIE) which had provided fellowship training for teachers from the Polytechnic Education Development Centre (PEDC). The HIE had also contributed some building and equipment planning with Asian Development Bank support. In developing the commerce polytechnics, IACPP was required to advise and assist in almost every phase of activity – teacher education, curriculum and materials development and revision, management at a system level and at the individual level for nine polytechnics, information and resources.

Overall, the project was successful in that it established business education in the polytechnic system – initially, it should be noted, through the use of Australian TAFE Business Studies courses at the diploma and associate diploma levels. It assisted with curriculum development and review, materials development, teacher training and recruitment, and building and equipment specifications. The team worked both with the polytechnics and the PEDC. At project completion the nine polytechnics were judged to be operating successfully, having delivered three years of graduates; the project had also developed curriculum and other support capacity at the PEDC. Notwithstanding, the project managers considered that the commerce programs did not yet have the capacity to sustain themselves, projecting the need for further assistance.

Clearly, from the reports there was some concern amongst Australian advisers and their counterparts about the nature and the pace of change. No doubt advisers felt pressured by the demands of the project, a feeling which would have been conveyed to counterparts and not always welcomed. The issue relates to the much bigger and more fundamental one of getting an

agreed and suitable balance between responding to a government's short term interest in achieving rapid and pervasive change and its long term one in sustainable improvement. For the donor in education, the latter goal is the more important.

The Second Indonesian Polytechnics Project or SIAPP was to improve the quality of graduates from the polytechnics and extend the commerce programs in eastern Indonesia. The objectives were initially also broad-ranging, but had to be radically reviewed and reframed almost immediately because of impacts that had not been identified during project design. As the PEDC had met the initial demand for trained teachers in polytechnics, most of its staff were transferred to the field, meaning that those components of SIAPP concerned with its further strengthening were no longer applicable. The SIAPP team also ran into problems being matched with counterparts and in obtaining budgets, and the Dili adviser could not get permission to take up his post. The revised project sought to concentrate its assistance in planning and management within polytechnics, and reduced its support for the PEDC to curriculum and materials development, in line with the Centre's revised role. The project employed the unusual strategy of establishing linkages between particular polytechnics and Australian TAFE institutions, removing direct responsibility for fellowships and short-term advisers from the Australian managing contractor. Notwithstanding, the strategy appears to have been effective, perhaps because of the wealth of relevant experience of the TAFE institutions involved. Project outputs included competency standards in some middle level business areas, a substantial stock of print resources, and further strengthening of individual polytechnics.

SECTION 7: ASSISTANCE TO THE PHILIPPINES

> *With around ten million people, Metro-Manila now holds almost one sixth of the population of the Philippines. Every year, many more thousands arrive here, forced from their land by usurious debts, land-grabbing by the big haciendas, militarization, environmental ruin.*
>
> *Jeremy Seabrook, 1993*

Background

The Philippines is an archipelago of 7,000 islands of volcanic origin, and a landscape of mountains and coastal plains, the latter typically under cultivation. It is achieving a gradual real increase in GDP and a steady decline in foreign debt, with increases in manufacturing exports, foreign investments and domestic savings. A third of households have incomes below the poverty line, mostly in rural areas where the benefits of accelerated growth are less likely to impact. One third of Filipino children do not complete primary school, however there are marked regional disparities in education levels.

Provision of TVE takes place at both secondary and post-secondary levels. In recent years the separation of vocational and general education at secondary level has been replaced by an integrated approach. Universities, state colleges, polytechnics and national vocational technical schools and institutions have made up the post-secondary system.

The Program

Australia's assistance to TVE has been at the post-secondary level, and most through two projects, the Philippines-Australia Technical and Vocational Education Project (PATVEP) and the Philippines-Australia Agricultural Technology Project (Agritech). The latter involved both a diploma and a degree and is included in this study because of the paraprofessional component. The former project was beset with difficulties from the start, most of which stemmed from the changing circumstances in the Philippines over its lifetime. As a case-study of aid in an environment of revolutionary change it has much to recommend it; while every project is unique, the level of uncertainty in its political environment could reasonably be expected to re-emerge in the event of democratic revolution elsewhere.

That uncertainty manifested itself in various ways. Administrative responsibilities of some of the key agencies were unclear and duplicated. Officers, as a consequence, were uncertain of their current powers and were working to define and differentiate their roles. Investigators and advisers could not help but be caught up in the ensuing conflicts. Restructuring and personnel changes, common amongst modern organisations everywhere, were continuing and pervasive. Those project components suffered for which their design had assumed some continuity in the existing arrangements. The removal of the Marcos regime had liberated an enthusiasm for reform, but this did not sit easily with the cautious and measured approach which has proved the most effective in Australia's overall international TVE assistance program. Nor was it an environment in which meaningful assurances about the future could be given. While there was confidence that TVE had broad political support, there could be no confidence that future

governments would continue to fund any institutions strengthened under the project, at levels commensurate with sustainability of the introduced changes.

PATVEP

A formal request to Australia for technical assistance was made by the Philippine Government in 1986. There followed a series of investigations by and on behalf of AIDAB, before an agreed program of assistance was settled on. Even then, the project implementation report of 1990 introduced further changes of emphasis in order to achieve what the project managers saw as practicable objectives. The goal of PATVEP was to improve the education and training of technicians and trade persons at selected technical and vocational schools so that they would meet industry standards. Components were: upgrading of the national centre for in-service training of teachers and delivery of management training, strengthening the arm of the Department of Education, Culture and Sports which has responsibility for technical and vocational education in terms of curriculum development and system management, and strengthening nine Technical Education Institutes/Schools of Arts and Trades (henceforth referred to as institutes) in seven areas of study.

Major inputs were fellowships, advisers and physical resources. The project contributed significantly to the strengthening of the national centre but had to contend with delays in its formal establishment and uncertainties about its role. Its greatest difficulties however, were at the Departmental level. The original project design had identified the development of suitable curriculum as pivotal to the success of the project as a whole. But given changing responsibilities, its place in the project continued to diminish. Notwithstanding, at project completion there were many individuals centrally and locally with considerable curriculum capability. Part of the problem appears to have been the initial espousal of the 1980s lock-step curriculum model discussed in Section 5. In practice what emerged was much closer to the more recent network-driven heuristic model, one which recognises the importance of decisions at the local level, even where there are agreed national standards to be met. Major structural changes proceeding within the Department meant that any lasting benefits delivered would result from individuals applying their learning in new settings and not from continuity of established systems.

In the short term, the project's greatest impact has been at the institute and national centre level. The project provided equipment and buildings, training and technical advice in four technologies in each Institute plus additional training in management and administration. Although well placed to deliver quality training in the short term, there are questions about the longer term.

The problem in all projects over the issue of equipment is exemplified in PATVEP. The original project design had proposed to establish five repair and maintenance mobile centres across the country to service and maintain equipment. The team had noted the poor state of much of the equipment and a lack of maintenance skills amongst many of the staff. This strategy was dropped as it was deemed impracticable. Instead, it was planned to train teachers to maintain machines themselves by pooling expertise across trades. Purchase of equipment became a major part of the project, as it was judged that such equipment was necessary to meet industry standards. In fact,

the evaluation notes that the equipment was in advance of that used in industry at the time of purchase though industry had introduced it since. This, we are informed, was the intention of the approach. What is more, the Government of the Philippines undertook to increase recurrent budgets to the institutes over the life of the project and the institutes were to be helped by the project to increase their earnings from staff/student projects with some going to cover increased operating costs. Accordingly, the evaluation notes that the introduction of new equipment had increased recurrent costs for electricity and materials, and will increase costs in repair and maintenance. But it also states that unless recurrent funding is significantly increased the technological capability of the institutes will be lost. There have been considerable doubts that it will be! It seems that the 'solution' of increased earnings was not a realistic one.

Another major challenge to the sustainability of the project outcomes is level of industry support. Certainly, institutes have strengthened their relations with local enterprises. But a true system-wide partnership, where curriculum decisions are routinely informed by industry plans, is still a long way off.

A third, and perhaps most crucial of all, is the future status of the institutes. They may choose to seek to become state colleges, thus improving their funding position. But the change would result in a stronger focus on degree and post-graduate programs, with probable diminished provision of certificates and diplomas.

Agritec

The Medium Term Philippine Development Plan (1987-92) gave the highest priority to development of the country's agriculture sector, in accordance with its place in the economy - contributing 27 percent of GDP and 20 percent of export earnings, employing 50 percent of the labour force and supporting 66 percent of the population. The Plan looked to develop the agriculture industry to increase rural productivity, employment and incomes; it placed importance on agricultural education and training reform.

The Government's main strategy for change in TVE for the industry was the establishment of a National Agriculture Education System which later became the National Agriculture and Fisheries Education System. The new system would involve phasing out substandard programs and institutions, and strengthening the ones meeting minimum accreditation standards. Those would be organised into an interactive hierarchical network of a national college, regional colleges and provincial technical institutes of agriculture. Australia's assistance was sought to strengthen a number of the regional colleges and provincial institutes, thereby complementing the contributions of other aid agencies.

During the feasibility and project appraisal phases, a number of challenges were identified, most fundamental of which was a massive disparity between the Government's planned role for agriculture in alleviating rural poverty and improving economic performance, and the human and physical resources within the existing system. Teachers generally did not have the requisite practical skills and had little perception of post farm-gate issues, so important to farm decision-making. Nor were they practiced at networking with teachers in other providers. Short course

provision was commonly based on the interests of staff rather then expressed community needs. Though the new system guidelines addressed curriculum, for the main award courses (a Diploma and Bachelor of Agricultural Technology), they provided for a continuance of topic based subjects and a separation of theory and practice, and failed to address sustainable development, an issue of vital importance economically and environmentally.

Thus, investigation suggested a need for assistance in significant curriculum reform at the national level, but the regional form of assistance to be provided was not compatible with a system-wide role. This ambiguity continues; machinery for extension of upgraded curriculum beyond the regions with which Australia has involvement has not existed.

The project goal has been *to assist the Government of the Philippines in improving and reorientating agricultural education services at provincial and regional levels to better meet the agricultural development needs of rural communities*. Australia accepted responsibility for two of the thirteen regions, being in the northern Philippines. The project was for assistance to the two regional colleges and nine provincial institutes, the latter subsequently changing to twelve. The objectives concerned strengthening the institutions, and especially for the provision of the Diploma and Bachelor in Agricultural Technology so that graduates could increase agriculture productivity and rural incomes, and gain employment in agribusiness.

A level of uncertainty, while nothing like as high as for PATVEP, has nevertheless existed for Agritech. Congress delayed approval of the National Agriculture Education System for a decade, even though it received administrative approval in 1987. While the delay is not seen as having significantly impeding the project, the consequent lack of clear government commitment to supporting what are costly developments has been a concern. Perhaps, too, project personnel might have experienced a higher level of local enthusiasm if the changes had had the force of law behind them. Then there has been uncertainty about the future of the regional colleges. Yet these have been seen as having a vital leadership role, in supporting the provincial colleges in staff training and in curriculum and materials development.

The focus of the course has raised issues about appropriate marketing. Curriculum reforms arising from Australia's input have resulted in a course in agricultural technology, rather different to the science-based courses widely available. But most providers have failed to promote it in terms of its unique features, probably resulting in less demand than would otherwise apply.

Amongst the strategies employed by the project have been the establishment of provider consortia for information sharing and co-ordination post project, establishment of outreach centres for research, linking with farmers, and co-ordinating outreach activities, provision of staff development, and upgrade of facilities and equipment.

SECTION 8: ASSISTANCE TO WESTERN SAMOA

> *While European contact and a cash economy have produced some changes in values and traditional authority, preservation of the culture has become an important goal among Western Samoan leaders; many outward features of Western Samoan life have remained virtually unchanged.*
>
> *The New Encyclopaedia Britannica, 1993*

Background

Western Samoa's two main islands, area of almost 3,000 square km, support a population of about 170,00 people, just over half of whom live in rural villages. The country has been a self-governing nation since 1962, following over a century of attempted and variously successful domination by western powers. Mixed subsistence agriculture is the main industry. Efforts are being made to diversify, but large scale emigration, predominantly by the most educationally qualified, creates labour shortages. More than two fifths of the population are under 15 years of age. Education is patterned on the New Zealand model. English is taught as the second language in primary schools.

The Program

Although Australia's TVE assistance program to Western Samoa has continued almost as long as that to Indonesia, typical of its involvement with small Pacific communities, its concern for most of that time has been with a single institution. It is that major component which is discussed below.

In 1963 what was then called the Trade Training Institute was established to deliver a range of trade pre-apprenticeship courses in traditional areas. By the mid-80s, as the Western Samoa Technical Institute, its provision had expanded to include apprenticeship off-the-job training, commerce and commercial courses, a Certificate of Engineering for the Public Works Department, occasional short-courses, and tutoring for students studying in New Zealand by correspondence. At Government level, concerns had emerged about the quality of the teaching and learning. Illustrative of these concerns, the country's Fifth Development Plan 1985-87 had noted a Public Service dependence on expatriates, where some engineering positions remained unfilled for want of qualified people beyond trade level.

In 1986 the Minister of Education requested that AIDAB undertake a study to provide guidelines for the restructure of the Institute. As a consequence, a small team spent three weeks in Western Samoa undertaking an investigation and preparing recommendations.

Challenges faced by the team included a lack of data upon which to draw for planning purposes, a lack of industry support systems for the Institute, questions of viability because of potentially low student numbers in many areas, and a lack of consensus about both the future of tourism in the country (and therefore, the need for training), and the form which Australia's assistance should

take. On the latter issue, team members understood that they were to deliver recommendations with respect to the provision of physical resources, consistent with minimum requirements.

The team found that the smallness of the Institute's budget was reflected in the Principal and Vice Principal being over-extended in trying to satisfy community expectations, a lack of maintenance of buildings, and inadequacy of equipment and materials. Furthermore, Public Service regulations gave the Institute no incentive to raise funds, and were incompatible with student-centred timetabling.

The team delivered an extensive list of recommendations, at the heart of which was the establishment of links with the Ministry of Labour, for the provision of advice on manpower needs, training provision, curriculum, work placement and quality control. Other recommendations included strategies for staff development, building refurbishment, and equipment, for which it provided a very detailed list. Its recommendations were presented as a four phase plan to 1991, including project evaluation and review.

In March 1987 a three year program of assistance was approved. Staff changes at the Institute were judged as necessitating amendments to the team's proposed actions. Furthermore, the recommendations were seen as underestimating the amount of equipment required. Certainly the "minimum adequate" has a subjective element and is the result of a host of factors – curriculum decisions, class size, timetables, maintenance and repair capability, level of supervision, nature of on the job training etc. Notwithstanding, the team had gone to unusual lengths, given the very short time it had available to it, to make definitive recommendations. The reason for the non-acceptance of the recommendations on this issue appears to have been either a change in AIDAB's implicit expectations or a misunderstanding of what they were. Of the original 21 recommendations, 13 were followed through in whole or in part.

One of the recommendations not accepted was for introduction of training in hospitality. As implied above, there were different opinions on whether there was a justified demand. Furthermore, the team had concluded that some key persons in Western Samoa were opposed to the development of a tourist industry. The issue of training for this industry is said to have resurfaced years later, with new recommendations for training provision, and again with a subsequent loss of support. At the time of writing this paper, the only specific provision is the inclusion of an elective in the recently introduced Diploma of Business. The issue illustrates the difficulties in delivering assistance where key decision-makers and power-brokers hold strong but opposing viewpoints. It also highlights the ambivalence which countries in the region may have towards development. Hall (1994, p. 199) wrote:

> *Although tourism is not without its unwanted or negative impacts, for many communities in the (Pacific) region it is often one of the few, if not the only, avenues for economic development, employment generation, and the attainment of the benefits of modernisation. The challenge for the peoples of the Pacific Rim therefore is to maximise the undoubted benefits that tourism can bring while ensuring that cultural integrity is not sacrificed for the tourist dollar.*

Supported by AIDAB, in 1987 a very extensive program of procurement was commenced. It provided equipment in workshops, with proper cladding on buildings to prevent break-ins and theft, and furniture for staff and students. With help from the Commonwealth Fund for Technical Assistance, three officers were allocated to the Institute, who assisted in curriculum and staff development.

A 1989 proposal for continuing aid noted that AIDAB assistance had been fairly *ad hoc* and that no MOU had been signed between the Governments for the total program. Whereas it would be normal for the Government of a recipient country to agree to contribute in particular ways, no such agreement was in place. This one-sidedness had probable implications for the impact of Australia's contribution. The 1986 team had suggested that there were areas of probable unmet demand but that labour market data were required to clarify the levels and that more could be done in areas of disadvantage. It had suggested also that curricula should be broadened, consistent with the very small businesses in which many of the students would ultimately work. Had the Government of Western Samoa complemented Australia's assistance with the collection and application of planning data, later assistance could probably have been more effectively targeted.

As it was, the 1989 proposal reported an urgent need for a manpower study. It also provided an extensive list of other proposals, including ones relating to organisation and management and to courses and evaluation.

For the next three or so years effort went in designing and implementing an appropriate and practicable program of assistance. The 1994 project implementation report referred to efforts in 1991 to put in place a fairly large-scale project requiring careful phasing with projects of other donors such as New Zealand, Japan and the United Nations. This was said to have been abandoned because of its complexity.

Notwithstanding, further assistance was delivered, and is continuing. The Institute was granted polytechnic status in January 1993 and became the major institution for technical and vocational education in Western Samoa. Thus the Polytechnic Phase 1 of the new program sought *to contribute to the strengthening of Western Samoa Polytechnic through assisting the introduction of the new Diploma in Business Studies incorporating selected electives in business and commercial aspects of tourism and hospitality, assisting the introduction of new units in Building Practices and improving the physical facilities for Business Studies*. Assistance was provided through staff development including fellowships in Australia, library support and curriculum support. A competency based approach was introduced, employing the 'DACUM' technique. Advisers view the strategy as successful because the work was undertaken by Polytechnic staff, skills being acquired through both formal training and the guidance of advisers. They consider that the Australian model was adapted to Western Samoan conditions because it involved analysis of Western Samoan industries; they report that the model is gaining acceptance across the Polytechnic.

Phase II builds on Phase I. It will provide more support to the library in materials and systems, further procurement for trade training, and a national traineeship for women into non-traditional areas.

SECTION 9: ASSISTANCE TO THE SOLOMON ISLANDS

> *At around 3.7% per annum, population growth is one of the highest in the world...Despite a fair degree of diversification, predominantly based on the development of fisheries, palm oil, timber and copra for export, Solomon Islands has been unable to achieve an annual growth rate in GDP significantly higher than the increase in population...The lynch pins for the future program will continue to be education and institution strengthening. The two areas are interdependent.*
>
> *AIDAB, 1994*

Background

The Solomon Islands is both a near neighbour of Australia and a least developed country. Subsistence agriculture still supports the great majority of people, but rapid population growth combined with mountainous terrain are putting pressures on land availability. Malaria is a major health problem and results in malnutrition amongst children who are too ill to eat. The country is well-endowed with natural resources, so its longer term economic prospects are good. However, like some other countries in the region, it has experienced recent socio-political turmoil with military action. Again, any subsequent study would need to consider their impact.

SICHE

The principal focus of Australia's development assistance for TVE has been for the Solomon Islands College of Higher Education (SICHE). It is the country's only institution offering TVE courses on a national basis. It resulted from a merger in 1984 of the Solomon Islands Teachers College, Honiara Technical Institute, the Marine Training School and the School of Nursing. An audit of assistance in 1993 showed that there were then seven international development projects supporting SICHE, two of which were with AIDAB, plus seven other international development support activities, four involving AIDAB. Thus co-operation between projects, intra- and internationally, has been vital to the success of Australia's program. As reported, the co-operative effort by project teams and agencies has been excellent.

The institution's appellation is illustrative of the potential for misunderstandings by Australians, in the absence of knowledge of entry levels and awards granted. Entry to certificate courses (minimum of four semesters) has generally been on the basis of completion of Year 5 at a national secondary school or Year 3 at a provincial (vocational) school with suitable bridging support. Diplomas have required completion of a certificate. Degree programs have not been provided and have required study offshore.

Australia's TVE assistance has had two major thrusts, strengthening of the College and upgrading of its Certificate in Tropical Agriculture. If one looks at the Table in Appendix 3 one might conclude that the latter amounted to only a minimum of activity spread over a five year period. In reality, the effort has been much more substantial; because the proposal was amalgamated with one for science education, its predominant general education focus meant that it has not been seen as a VET project.

Assistance commenced in the mid-eighties with support for SICHE in its planning processes. The Government's National Development Plan 1985-1989 emphasised regional and rural development, with female equity in the development of the country. The Plan, together with objectives and functions of SICHE as laid down in its enabling legislation provided a framework for 'planning for planning'.

Support for SICHE continued with funding of in-line management positions through the Australian Staffing Assistance Scheme and with UK assistance. The continued involvement of Australians has meant that SICHE's approach to curriculum has conformed closely to Australia's.

An impediment to the sustainable development of SICHE has been the inadequate availability of suitably skilled nationals for appointment as staff. Like all developing countries, Solomon Islands looks to the day when it will not be dependent on the employment of expatriates.

The Institution Strengthening project has the goal *to make SICHE a high quality, post-secondary training institution managed by national staff* by increasing staff capability and improving services and facilities in seven areas – the Schools of Finance and Administration, and Industrial Development, the library, accounting and finance, staff development, catering and applied research. Strategies include overseas fellowships and in-country training for staff, provision of teaching and learning materials and some equipment, building improvements, putting in place financial management systems, and assistance in research.

The objective of the agriculture component of the Science and Agriculture Education Project is *to develop and implement appropriate academic and institutional processes for the review and strengthening of the Certificate in Tropical Agriculture course at SICHE*. Sub-components are curriculum development, staff development, teaching-farm development, a gender equity program and institutional linking. The strategies associated with the gender equity sub-component are scholarships for female students, strengthening of selection processes to ensure greater opportunities for women, tracer studies of female graduates of the course, a trainee tutorship to support initiatives for women in agriculture, and a study project for a lecturer in community education for women in rural areas. The institutional linkages are to be established with an Australian institution providing training in tropical agriculture and the School of Agriculture at the University of the South Pacific, with cross-accreditation arrangements in each instance.

SECTION 10: ASSISTANCE TO PAPUA NEW GUINEA

> *The task of promoting sustained and equitable development in Papua New Guinea has proved difficult in recent decades, and is likely to be challenging in the decades to come. Since independence Papua New Guinea has been successful in attaining cohesion and stability, but the economy remains at a disproportionately low level of development in a number of respects. There are two main reasons for this: the inherent problems of development in Papua New Guinea, and the low priority accorded to development goals during the period of Australian administration.*
>
> *Committee to Review*
> *Report on The Australian Overseas Aid Program, 1984*

The recent natural disasters of drought and tsunami have added to the already very difficult circumstances challenging development in PNG. They have driven further migration to urban centres to swell the ranks of those attracted by minimum wages but for whom there is little chance of paid employment (Levantis and Gani, 1998).

Though Australia's TVE involvement in PNG has extended for over a decade it is only recently that it has been concerned with assistance in major reform of the TVE system. During 1994/1995 AusAID commissioned a study of the arrangements for TVE and the implications for the system of the reforms to TVE that the PNG Government was pursuing. At the same time, another AusAID investigation was in progress for the establishment of a system for the testing and certification of trade standards. The former's starting point was education reform, the latter's was labour market reform.

Under the TVE reforms, vocational centres are moving from being post Year 6 to post Year 8, with curricula that are more community-based and which equip people for self-employment as well as working as an employee. Technical and business colleges have offered a wide range of courses at pre-apprenticeship, apprenticeship and technician level, with entry post Year 10. Given industry dissatisfaction with current programs and limited work opportunities, the one-year pre-apprenticeship is being mostly replaced by a two-year, broad skilling, Technical Training Certificate.

The National Trade Testing and Certification System (NTTCS) Support Project builds on assistance delivered by other agencies and Australia through the Commonwealth Fund for Technical Co-operation and the Commonwealth of Learning. Under the last mentioned program, Australia's TAFE system has assisted with test bank development and curriculum writing for the automotive industry. Delivery of the NTTCS project suffered a delay in commencement, but is now underway.

The project's goal is *to contribute to sustainable economic growth through PNG by facilitating increased employment of competent workers*. The objectives include support and training in management and co-ordination, support for the development of trade standards, trade tests and procedures for six traditional trades and business studies, developing facilities and human resources of technical and business colleges and private industry to enable them to function as

designated Trade Testing Centres, enabling the colleges to teach curriculum to support the competency-based standards, and supporting the development of training in industry to the standards and industry experience among teaching staff.

One of the issues with which the project must deal is administrative responsibility of trade testing centres for the workforce which are sited in colleges. Another is achieving gender equity. Participation in TVE courses has been highly gender-determined. Indeed, it is believed that business studies were originally included only because they catered for women. Government reforms to TVE have sought to achieve marked increase in female participation. The project will attempt to break down traditional barriers to entry for both sexes. A third difficulty is overt recognition of environmental and occupational health and safety issues in standards.

SECTION 11: ISSUES COMMON TO PROJECTS

> *Put in concrete terms, there is a danger that vocational education will be interpreted in theory and practice as trade education: as a means to securing technical efficiency in specialised future pursuits. Education would then become an instrument of perpetuating unchanged the existing industrial order of society, instead of operating as a means of its transformation.*
>
> *John Dewey, 1916*

John Dewey's words of over eighty years ago probably have even more relevance now than they did when he wrote them. Given the pace of industrial and technological change in developing countries, aid programs in vocational education will have contributed little if they have assisted individuals in the acquisition of only routine mechanical skills rather than adaptability to change and an affinity for new learning. Strategy to achieve the former might be little more than handing over equipment and manuals; the latter requires empowering administrators and teachers with an understanding of change dynamics and the skills to operate effectively in a change environment. This is no small expectation. One report noted that it was much easier to gain acceptance of new work practices where they were additional to existing activity than to convince people to replace practices. While the comment could equally have been made in relation to change management in Australia, it is a valuable lesson for those unfamiliar with the body of knowledge relating to change management. It also points to the possible benefits to be gained from knowledge of problems which keep re-emerging as impediments to effective team action and whether there are possible ways of overcoming them. This study has noted three themes in problems which have kept resurfacing: issues relating to project design, issues relating to learning of technologies and issues relating to different cultural values.

Project Design Phase

Over most of the period with which this study is concerned, it was standard practice for a team to spend about three weeks in a country to investigate the preparation of a project design. A high level of detail was sought and given. Where the project built on an existing one and/or team members were already familiar with the setting and issues, the timeframe was adequate. But where neither of these conditions applied, the result was commonly non-acceptance of the proposal, a desk appraisal, and another visit to appraise in country. Eventually a satisfactory design would be achieved and the project put to tender. Following awarding of the contract, an implementation document was prepared by the successful party. The whole process commonly proved extremely protracted. Furthermore, where changes were made to a project at implementation, it could be questioned firstly, whether, in spite of the lead time, the design was impracticable or perhaps outdated. Secondly, it could be questioned whether the contract should have gone to another party. Recent changes introduced by AusAID appear to have overcome these problems by introducing a 'scoping' approach to design. This means that competitors for tenders should be able to offer a greater diversity of potential approaches and ones that are consistent with their particular strengths. It should also give the successful party more flexibility to respond to conditions in-country at the time of service delivery.

As a World Bank paper noted in 1984 (Silverman, p. 7)

> *By its very nature, a program to improve institutional capacity must be implemented over a long period within a changing environment. Thus, the program must be designed to allow continuous modification, based on learning and innovative problem-solving rather than on routine applications of solutions determined during an earlier planning and design phase.*

The issue of achieving a suitable balance between responsiveness and accountability will always be a challenging one with no definitive answer. Certainly, there is the potential for those 'at the coal-face' to lose sight of the bigger picture. Lundberg (1997) describes the consultation process as one of uncertainty reduction. He sees this drive as meaning both consultant and client 'will come to have similar values and assumptions, strategic beliefs and operational expectations'. Such a process of paradigmatic convergence could be beneficial in overcoming cultural differences, and achieving greater team commitment to the job in hand. But it could also mean a reduced critical perspective and diminished concern for big-picture issues that are crucial in seeing and responding to need for change.

A possible area of research could be to ascertain to what degree paradigmatic convergence operates between those delivering bilateral, project-based assistance and their counterparts, and if and how it may affect project delivery.

If such a process is an impediment to achievement of optimal outcomes, the role of Technical Advisory Groups, that AusAID employs on an occasional basis to deliver expert and independent critical advice, becomes vitally important (see Australian Agency for International Development 1998a, for an evaluation of Technical Advisory Groups). Their use seems to be a better strategy than demanding frequent and detailed reports, the preparation of which takes people away from providing assistance and which can dilute the focus on key objectives. Indeed, monitoring and reporting against objectives and budget, combined with the potential for services to be terminated for non-performance, would seem to achieve the right balance between responsiveness and accountability. It is also consistent with Australia's approach to provision of assistance in VET being responsive and flexible rather than rigid and highly planned. Of course, at project completion, a more detailed report remains important, as a vehicle for lessons learnt. One of the few suggested improvements this study has received for the way Australia's VET assistance teams undertake projects, has been that they should pay more attention to getting stakeholders, as distinct from counterparts, 'on side'. This might be the downside of a pragmatic approach.

Teams might give more thought to identifying stakeholders, building relationships with them, and satisfying them that their concerns have been given due consideration.

Where the TVE sector is to be changed to develop competency as per industry-agreed standards, it makes little sense to attempt to anticipate the standards by undertaking significant curriculum

change and purchase of major equipment before the standards are set. Yet some project designs have prescribed this. 'The cart before the horse' problem has existed in Australia with respect to curriculum development, but is much worse for developing countries where resources place severe constraints on replacing or upgrading equipment once assistance is withdrawn.

Project designs need to take more account of the issue of sequencing, especially where curriculum is to address competency standards but the latter are yet to be developed.

Project Delivery - Learning Technologies

Most projects concerned with improving curriculum standards have taken a multi-pronged approach to the issue. In general, the equipment of providers has not matched the requirements of the proposed revised curriculum, nor have the teachers' technological skills. The latter have been addressed through workshops, fellowships and other in-service training. If, on returning to their schools the equipment is not in place, experience shows that the skills are soon lost from lack of use. In addition it has been common for teachers to take up job offers from industry and quickly leave the system.

Teacher development should be co-ordinated with arrangements for ongoing access to equipment and with training others, in a cascade process.

Training to use equipment has not been enough. Its use on an ongoing basis has depended on teachers being able to maintain it. This is important because servicing may not be readily available, or if it is, the cost may result in administrators withholding approval. It is now understood that purchasing Australian-manufactured equipment as a way of assisting Australian industry will be counter-productive, if it is not fit for purpose and supported by accessible, post-sale service.

Equipment purchased should be items for which there is servicing locally or at least readily available, as well as being suitable for teaching (robust, consistent with current industry practice, good for learning the principles, or whatever are the important characteristics).

But even if equipment is maintained in working order, there are questions about its useful life. As discussed above, equipment in developing countries will probably not be cutting-edge, but where those countries are able to access technologies that have undergone development elsewhere, change can be rapid. Added to this is the great range of technologies that may be in operation, from the low technologies of traditional third world countries to some advanced technologies where it is economic to introduce them. Clearly, if a person is already employed,

there is not a problem, as the technology to be learnt will be that which is of interest to the enterprise, and access to the relevant equipment will be provided. In accordance with the curriculum model elaborated above, Australia has encouraged pre-employment vocational education that captures the technologies in use locally. But given that these can be diverse or in the process of change, should equipment be accessed in industry? The answer relates, on one hand, to the host government's level of commitment to maintain and upgrade resources and, on the other, to the attitude of those associated with the enterprises. Even where there is strong will, at government level, to provide sufficient ongoing funding, budget conditions can worsen, as is happening in some SEAP countries at present, or it can lose office. Yet businesses have not always been prepared to provide hands-on experience with their equipment, for fear of damage and the consequent loss through down-time. Nor have they necessarily seen it as their role to support TVE in this way.

For all these reasons, formalised arrangements that combine on and off the job learning are proving attractive. This is the approach that Indonesia has chosen to take at trade and equivalent level. It has yet to be seen how workable it will be, especially in an environment where many businesses are hard-pressed to survive.

Regardless of whether industry provides access to its equipment, most projects have sought to strengthen institutions by provision of some physical resources. Where a project is working with a range of institutions it has commonly been found that they differ markedly in their state of development as measured by their human and physical resources, curriculum practice and attitudes to students, industry and community. Given that institution staff will argue to maximise their position, wish-lists of equipment have been the norm. But even where expectations are soundly based on the analysis of curricula, funds will probably preclude full purchase. Consistent with the model discussed above, the preferred strategy has been to assist some to become pace setters. In that spreading resources thinly can mean that no institution is worthy of emulation, there has been no practicable alternative to concentration of effort, by directing it at the relatively committed there has been greater confidence that support will not be dissipated through indifference. But unless the networks for learning, as implied by the model, are in place and functioning effectively, the outcome can only be increased advantage of the few relative to the many. This study has not discovered any particularly effective strategies for this aspect of system strengthening. It is a matter justifying further research.

Research should take place into processes whereby effective and enduring network arrangements can be instigated for the sharing of resources and dissemination of learning, between 'centres of excellence' and other schools/colleges.

Project Delivery - Cultural Perspectives

Probably the greatest dilemma that has faced most project teams relates to gender equity. Even where women and girls have shared proportionately in general education and TVE at the aggregate level, they have usually been concentrated in courses for traditional female occupations

eg, clerical, crafts, home duties. Numbers of males have been very low in those same areas. As a person consulted in this study observed, those females who do complete courses in male dominated areas appear to be as successful or even more successful than their male counterparts, but few even qualify for entry to the courses, so effecting change is extremely difficult. Furthermore, though government policy has usually sanctioned change, it has not necessarily aligned with societal values. Those values can lead to different perceptions to the ones most Australians are comfortable with. One project found that it was common for parents in Indonesia to view employment conditions in tourism and hospitality as unsuitable for their daughters. Another project in the Philippines noted that older Filipina women who have raised a family are strongly respected if they pursue a career, but that this is not seen as the role of a younger woman, nor is the older spinster in the workforce the subject of respect.

From a western standpoint, ethical and economic reasons come together: there should be gender equity in general education and vocational education because it is socially just and because education for women is generally viewed as leading to a reduction in the birthrate and infant mortality, and an increased the standard of living (see, for example, Gibney 1995). So there is strong incentive for teams to encourage women and girls into TVE in general, and into non-traditional areas in particular, where these have greater earning potential. But this may mean challenging strongly entrenched cultural norms, which could be counter-productive and goes against notions of cultural respect. Thus teams face a dilemma.

From a post-modernist perspective, it might be argued that the value of gender equity has no more inherent right, than the value of adherence to cultural tradition. However, the economic justification can be publicised sensitively, through the use of statistics, anecdotes and stories, role models etc. Resource materials, kits and guides can be of assistance to teams in coping with this issue. AusAID in 1997 produced a publication, *Guide to Gender and Development*, which could be helpful.

While the matter of gender equity is, if not explicit, then implicit in all projects, different cultural perspectives can sometimes create other difficulties. One project became involved with a student selection process that sought to assess applicants from a moral standpoint. Apart from questions of validity that must apply in such an exercise, there is the matter of what is meant. The solution appears to be in sensitively providing assistance in the clarification of objectives and the relevance of criteria to the courses or occupations concerned.

Those who participate in projects should be alert to the potential for being drawn into activities that are questionable on a cultural, ethical or educational basis, and should have undertaken professional development in handling these situations.

SECTION 12: SUSTAINABILITY AND EFFECTIVENESS

> *An important policy question is whether increased emphasis on worker training both by the public and private sector will have a significant impact on productivity, living standards and income inequality. Economists since Adam Smith have recognised that investments in new skills, or human capital, should be evaluated in the same way as investments in physical capital.*
>
> *Orley C Ashenfelter and Robert J LaLonde, 1996*

Sustainability is a key issue for those who work in the field of economic and social development of nations. The most straight-forward definition of sustainable development is *development that lasts* (Poulson 1994, p 306). To claim sustainability for a program with which this study has been concerned, at a minimum, some sought-for change in education system characteristics would have to be observable post program termination. However, even observation some years later that a greater percentage of teachers have both teaching and industry-related technical skills than they had at project commencement, or that a revised curriculum is still in use, falls short of demonstrating that a program has delivered continuing benefits to society. And in the latter instance, a static approach to curriculum might indicate failure in sustainability of an overriding objective – a process of ongoing educational development.

So the issue of sustainability should be looked at critically, in terms of both the sorts of changes in an education system we would wish to see in the long run, and the effects a program appears to be having in the community. Various definitions of sustainable development have been employed at international agency level; these have increasingly included the environmental as well as the social and economic (for a discussion of definitions see Pezzey, 1992).

The World Bank, with a 'Spaceship Earth' perspective, now looks to a range of qualities on a global scale:

> *...social inclusion and participation, the natural resource base and the global commons, long-term verses short-term horizons, economic equity as well as growth, differences in perception, and the complex dynamics which interlink the planet's social, ecological, information and economic systems* (World Bank 1998).

Hence, in looking critically at effectiveness, one may want to go beyond considering the achievement of a program's stated aims and question whether they have been consistent with sustainable development in a broad sense.

For instance, has curriculum content for agriculture adequately addressed ecological issues, or has curriculum content for teacher training, set development of local understandings in a global context? This research has noted that environmental issues surfaced and submerged at various points during the aid programs. And on the matter of teacher training, just breaking away from a standardised curriculum and instead, dealing with the individual circumstances of the learner, appears to have been challenging. Linking the global and the local would be a further one.

The World Bank's Indicators of Sustainable Development with complementary method sheets are to be available to all countries in 2001. Their use could be explored as an aid to program design in TVE and, in particular, curriculum development.

Given the nature of this research, it is possible only to draw some tentative conclusions about the sustainability and effectiveness of the programs. With field-based research that has time to explore school, community and enterprise relationships, the changes that have taken place, and their causes, it might be possible to make firmer judgments. The issues are fundamentally important. For, unless Australia's inputs have delivered sustainable outcomes that have contributed, albeit in a small way, to national development, there can have been little justification in devoting resources to assist in TVE development. Not only could this nation's aid funds have been used to better purpose, the recipient countries' project contributions might have been better channelled. As Harbinger (1997) points out, there are opportunity costs for the recipient also, and these should be taken into account in cost-benefit analysis.

This study, with the data available to it, cannot undertake a cost-benefit analysis nor can it estimate opportunity costs except to note that recipient commitments in dollar terms have been much smaller than Australia's. But of more significance is the question whether the assistance drove governments, institutions and systems in certain directions and thereby prevented them from going in other, possibly more effective ones. To the extent that Australia's approach has been pragmatic rather than doctrinaire, by helping to facilitate recipient governments' policies, the potential for misdirection has been minimised.

On the basis of reports and evaluations examined in this study, it appears that countries have progressed further along their chosen paths than they would have done in the absence of Australia's assistance. Changes have been made in administrations, systems and institutions which have strengthened their ability to deliver better services. But is improved TVE delivery actually taking place? And, with withdrawal of support, is it followed by continuing advance, maintenance of position, or slippage?

In attempting to answer these questions it needs to be borne in mind that most of the assistance Australia has delivered for TVE has been part of much larger Australian programs, and has been in parallel with the programs of other agencies. Not only is it difficult to distinguish the individual impacts, some projects are interdependent. For instance, some of Australia's projects involving teacher and curriculum upgrade have depended on buildings and equipment purchased with the support of the Asian Development Bank. In addition, most of Australia's projects have sought to provide a change environment. As discussed above, judgments about sustainability should be based on consideration of both the capacity to endure and the flexibility to accommodate new developments.

The most meaningful effectiveness indicators are ones which are amenable to some level of measurement, and which relate to a program's core purposes. These are the alleviation of poverty and economic growth. However, inferences cannot be drawn from changes at the macro level

about the impact of Australia's TVE assistance programs. Comparisons of the financial positions of those completing revised TVE courses with that of their predecessors could provide evidence of their impact on income, assuming the cohorts are otherwise comparable. Studies that measure changes to male and female success in gaining and retaining relevant employment post project implementation, together with any change in employer satisfaction, would be useful. Projects have promoted the undertaking of tracer studies by institutions as part of their ongoing research. But lack of baseline data might limit their application for this purpose. Other comparisons that could be informative include productivity of central administrations, industry involvement in TVE, and employment of females in non-traditional areas.

Conclusions about sustainability would require systematic investigation of sites where assistance was delivered, at a suitable interval after project completion. Evaluation studies have been undertaken by AIDAB / AusAID, but given that they are costly, they have concentrated on some aspects of a project and not others. The small amount of anecdotal evidence this study has gained from those who happen to have visited sites suggests continuance of the more routine aspects of educational and management practice in place at withdrawal, but that there is less evidence of dynamic ongoing development. If this is in fact the case, it confirms the importance of long-term programs of assistance. Nevertheless, a major objective of programs is that people in the recipient country are equipped to drive and manage what has been referred to as 'discontinuous change'. This can mean changes in values and behaviour patterns – institutional change, not just in structures – organisational change.

There is opportunity to improve Australian aid programs for TVE in this area. While the change management literature is considerable, the issue of development of the capability at institutional and organisational level through bilateral project-based assistance is not. Investigation should be undertaken into more and less effective strategies that take into account different institutional and organisational cultures in the host country and cultural differences between donor and recipient.

The greatest determinant of sustainability, is the host government's preparedness or ability to resource institutions at requisite levels on a continuing basis post project completion. The issue of equipment was discussed in the previous section. But there are also the issues of teacher and administrator training and the supply of materials. A World Bank published study on the effects of resources on education in developing countries has shown teacher education as having the most positive benefit (Hanushek 1995). For TVE teachers, training needs to include industry-relevant skills. Yet investigations for most Australian projects found that these were lacking. Projects have sought to address the problem, very effectively in the short term. But the problem will re-emerge if the supply of technically able staff does not continue. Teacher training in SEAP is typically a responsibility of polytechnics and higher education institutions. These have been assisted to provide more suitably trained teachers. But given their traditional preference for almost exclusive concentration on theory and cognitive skills, there are risks that the pool of suitably skilled people in TVE systems will decline, as the institutions turn away from TVE teacher training and those trained as teacher-trainers move on. In these circumstances,

recruitment from industry followed by teacher training is one solution, provided that there are sufficient numbers of suitably skilled people willing to make themselves available, and to move to regions where the demand for teachers is greatest. Given typical salary differentials, this is unlikely.

In the absence of extensive information on project outcomes, an assessment can be made of the degree to which inputs (project components) have constituted best practice. Gray and Warrander (1992) have examined their own project experience and that of many others through an extensive study of the literature. They conclude that projects should assist in the development of:

- strong and supportive relationships between the labour market and providers with institution-managed labour market studies eg. reverse tracer studies, tracking labour market signals, skills analysis;
- quality staff who can *handle both practical and theory teaching, and the practical work is likely to include the capacity to service and repair relevant equipment;*
- relevant curricula, suitable facilities and equipment;
- good management and leadership within institutions;
- *sound, robust planning mechanisms at both institutional and national levels*; institutional autonomy and competition for resources should be promoted consistent with mechanisms to ensure compliance with system objectives.

They also emphasise two other matters. One is the importance of well-researched and managed projects with capacity to change direction, and this means monitoring of the environment and impacts throughout a project. The other is, TVE students should have a good general education foundation.

Examination of projects has found that they have sought to address all these issues in some form. There has been least accord with institutional autonomy. The model this paper calls a network-driven heuristic one places greater emphasis on mutual support between institutions than autonomy and overt competition for resources. Gray and Warrender acknowledge that many institutions in developing countries are not in a position to assume autonomy, but notwithstanding, public sector controls often unduly constrain responsiveness.

It is on the issue of increasing industry's interest in strengthening links with providers that the authors make what is probably their most significant comment: 'This will only occur where employers need the skilled outputs of institutions'. Here lies the second major threat to sustainability. In that the linkages are integral to the model, failure of institutions to build flourishing communication and support arrangements will prevent them matching the demands of their local labour markets and thereby strengthening local industries' dependence on them - a 'Catch 22' situation.

The World Bank (1991) decision to phase out support for school-based vocational education resulted from their conclusion that it is more costly than general education but delivers no advantage in gaining of employment. But King (1993) points out that the Bank's criticisms were about the least structured versions of school-based vocational education, and that both western developed and developing countries are continuing to espouse forms of school-based TVE. The

trend has been for Australia's support to be for fully structured TVE programs, either at post-secondary level where they build on a solid base of general education, or at upper secondary level where vocational content is complemented by and interwoven with general education. Thus support has not been for the sorts of programs condemned by the World Bank. Furthermore, the programs appear to have met Gray and Warrenders' requirements of a good general education foundation.

SECTION 13: CONCLUSION

> *Far from playing the Good Samaritan the rich world has developed a new role. Today we are bad Samaritans. We do not simply pass by on the other side...We cross over and announce our intention to help...We are not just blind to his needs as were those men in the original story...We are blind to our role in the proceedings.*
>
> *Paul Vallely 1990*

For each person who seeks to provide assistance to developing countries, there is the inevitable question about the worth of his or her actions, "But am I really helping?" This study has suggested that for those working in Australia's bilateral development projects to assist ordinary people to gain employable skills, the answer is "Yes". Many individuals (counterparts, students, and other government and institutional personnel) in the recipient countries have gained through an increase in their knowledge and skills. Various institutions at secondary and post-secondary level are better able to serve their communities. Some government departments have established management systems that will enable them to provide more effective leadership and to serve their governments more professionally.

Effects may, in the longer term, flow on to deliver wider benefits. The most important would be an improved standard of living amongst the urban and rural poor, as a consequence of more skilled employment and better incomes for both men and women, through improvements in the quality of the physical environment and, at the national level, economic growth. Whilst we have suggested (above), that programs should accord with these broader objectives, we concur with Psacharopoulos (1997) who urges that assistance with vocational education not be overloaded with social and economic objectives that really are better pursued in other ways. Further research may provide evidence for or against the ultimate effectiveness of programs but, given the complexity of the systems involved, their impacts on societies as a whole may always remain a matter of informed conjecture.

It must be remembered too, that the very nature of projects in VET puts them in a 'very difficult' category. AusAID recently reviewed aid delivery to the eastern islands of Indonesia, including that in VET, and concludes (Australian Agency for International Development, 1998b, p13):

> *The institutional difficulty of a project is inversely proportional to the amount of concrete physical development the project aims to achieve. This means that it is more likely to be institutionally easy to undertake a turnkey engineering project in which the output is a road, a bridge, or a canal which is entirely managed and implemented by a contractor and then handed over to the client...Conversely, the project that calls for the client's staff to be brought up to speed on a range of skills and techniques, and for the client's institutional system to be able to replicate the task in the future, will be much harder to achieve. The project that has the sole goal of completely revamping the client's organisations and systems will be harder still. In Indonesia the terms 'hardware' and 'software' are often used to refer to physical and human development respectively. The hard projects are easy and the soft projects are hard!*

This study has concluded that programs of assistance have been strongly influenced by curriculum practice in Australian VET at the time. This has been less as a consequence of assumptions about how curriculum should be addressed, and more of a response to the interests of governments as clients to acquire what they view as a worthy approach. Most projects have seen nationally-specified curriculum materials for adaptation locally as a fundamental ingredient in the change process. In recent years, an objective has been that those materials shall address competency standards. Part of the reason for the enthusiasm of governments has no doubt stemmed from an assumption of cost-effectiveness in systems where many teachers have yet to gain the skills necessary for developing industry-relevant curriculum.

Given this tendency to adapt Australian models to offshore settings, current developments in VET in Australia should first be examined critically for their suitability for developing countries before being applied in those settings. Australia has now moved to Training Packages where national material might be little more than competency standards, assessment requirements and qualifications. In some states, informal links between institutions are being dissolved in favour of a more competitive approach where relationships are 'strategic alliances'. These developments reflect the maturity of Australia's VET system; it will probably be many years before the majority of SEAP nations would benefit from a similar approach.

On the other hand, SEAP governments, given severe budget constraints, may soon look to promote quality private provision more strongly, as they continue to depend heavily on private providers for most TVE. Given Australia's recent experience in this area, here is perhaps, an opportunity for it to assist governments in a new way to strengthen TVE in their countries. Australia still has much to contribute to its neighbours in the development of their sectors for TVE. However, Australia has a responsibility to look critically at current developments at home, in terms of their context and application, before advocating them offshore.

Writing about overseas assignment work Joyce Sautters Osland (1995) observed:

> *Like Odysseus, the newly arrived expatriate faces new locations that are shrouded in ambiguity and full of unknown languages and customs. Like Hercules, the expatriate faces tasks that are challenging - often well beyond what the same person would have been asked to accomplish in the home country...When they talk about why they would go abroad again, expatriates describe the essence of the experience - what it meant to them. After returning home, they missed the daily opportunities to learn new things, the excitement, the feeling of being special and more alive, and the high level of challenge.*

The 'muscle-bound' image of the hero is misleading given that both men and women have participated in the programs that this study has researched. But the portrait of commitment to overcoming challenges is not!

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APPENDIX 1

PROJECT DOCUMENTS EXAMINED IN THIS STUDY

INDONESIA

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CONSULTATION

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APPENDIX 3

PROGRAM COMPONENTS BY PROJECT, YEAR AND COST TO AUSTRALIA

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AIDAB/AusAID Projects in South East Asia and Pacific with Major TVE or Training Focus (A$s) 1980/81-1995/96

COUNTRY	PROJECT	TOTAL	FINANCIAL YEAR																FINANCIAL YEAR
TOTAL $S			80/81	81/82	82/83	83/84	84/85	85/86	86/87	87/88	88/89	89/90	90/91	91/92	92/93	93/94	94/95	95/96	96/97
CAMBODIA	ACR Agricultural Extension	2,407,625													741,080	200,000	1,356,750	109,795	
	APHEDRA Technical and Rural Training	289,549													207,687	81,862			
6,444,036	Agricultural Extension	3,018,473															3,129	824,572	2,190,772
	CCDP APHEDRA Technical / Vocational Training	728,389																230,015	498,374
FIJI	Police Training	1,319,428															93,768	178,195	1,047,465
	Fiji Institute of Technology	250,000																250,000	
1,808,606	ACPAC Courses (public service)	239,178											37,932	30,418	170,828				
INDONESIA	Technical Education Assistance (IATEP)	32,598,552	2,703,638	2,933,135	4,076,292	5,620,973	5,824,922	4,748,204	3,352,645	2,741,891	482,243	114,609							
	Technical and Vocational Education (IATVEP A)	21,959,072							1,977,627	574,584		172,750	2,743,413	4,838,601	4,444,924	3,333,479	3,585,167	288,527	
105,822,323	Technical and Vocational Education (IATVEP B)	16,420,569											539,593	3,237,705	3,132,960	4,367,574	3,565,000	1,577,737	
	Commerce Polytechnics	18,255,936							2,999,373	3,960,164	3,526,956	4,202,503	3,055,997	510,943					
	Second Indonesian Polytechnic	11,753,222												2,330,984	2,843,132	2,556,037	1,708,282	1,677,514	647,273
	Partnership in Skills Development (Implementation yet to commence)	339,998															49,217	167,880	122,901
	KIM Technician Training	3,480,787								260	138,138	557,562	1,032,421	978,854	668,733	104,819			
	ADP Vocational Education	562,176									32,583	529,593							
	Country-specific Training	442,011	72,336	137,459	171,216	61,000													
LAOS	English Language Training	5,111,281								13,071	11,472	82,303	278,418	523,937	790,201	595,418	636,865	905,120	1,276,476
5,111,281																			
PAPUA NEW GUINEA	Trade Testing & Certification	148,308														64,601	69,331	8,582	5,794
	Technical College Course Transfers	543,418																388,068	155,350
	Community Teachers College Lecturer Development	3,975,046							156,300	268,602	382,171	385,061	448,270	596,585	583,443	545,508	469,578	139,528	
11,170,108	Maritime College	5,924,611														33,481	14,658	2,154,348	3,722,124
	Education and Training Resources	421,427															417,172	4,255	
	Police Training / Police College Training	157,298						104,394	24,904	28,000									
PHILIPPINES	Technical & Vocational Education (PATVEP)	28,264,029								105,914	39,436	666,389	3,000,150	10,564,165	9,601,481	3,959,877	181,968	145,649	
	Agritech	17,860,843													2,418	1,383,134	5,692,532	4,946,257	5,836,502
47,765,494	Country Specific Training	426,193							426,193										
(South East Asia Regional)	Colombo Plan Staff College	1,214,429										416,554	395,889			95,077	99,535	102,409	104,965

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			80/81	81/82	82/83	83/84	84/85	85/86	86/87	87/88	88/89	89/90	90/91	91/92	92/93	93/94	94/95	95/96	96/97
SOLOMON ISLANDS	SEP-SICHE Master Plan	603,238							370,052	10,725	27,640	37,821	157,000						
	SICHE Institution Strengthening	1,267,928														47,952	157,771	441,514	620,691
2,527,435	SICHE Agriculture Course	40,540																	
	Police Training	525,729									15,703			20,700	4,137				
THAILAND	Country specific Training	981,859														342,956	182,773	100,000	
3,685,059	Asian Institute of Technology	2,703,200							936,044	3,032		42,783							
TONGA	Community Development / Training Centre Phase I	1,728,471											1,741,962	961,238					
	Community Development / Training Centre Phase II	421,254					13,392	6,825	305,472	33,377		35,865	93,701	370,618	869,221				
2,582,226	Community Development / Training Centre Phase III	432,501														379,446	39,158	2,650	
TUVALU	Captain / Superintendent Training, Marine Training School	305,254															531	84,972	346,998
308,254																			
VANUATU	INTV Technical Vocational Training	199,160			39,890	46,214	43,919	46,013	39,890	60,328	30,000								
	Secondary Teacher Training	282,842														7,573	34,915	40,969	175,703
557,102	Garment Training Centre (WID)	75,100																	282,842
VIETNAM	QSA: Training in Food Production for Families	244,219									37,700		15,400	22,000					
	UNICEF: Education for Ethnic Minorities	331,000														80,621	122,147	41,451	
1,416,857	APHEDRA: Ha Tay Vocational Training Centre	454,003												133,000	66,000	66,000	66,000		
	QSA: Teacher Training in Thirty Provinces	387,435											38,000	32,500	185,146	123,167	55,740	19,450	
WESTERN SAMOA	Vocational / Secondary Curriculum Development	785,744		11,241	3,208	8,276	226,060	212,194	324,765								272,890		114,545
	Technical Institute	1,177,426							149,276	322,966	347,044	221,038	75,337	54,850	6,915				
2,823,374	Polytechnic Phase I	800,984														146,225	315,589	89,476	249,694
	Polytechnic Phase II	59,220																	59,220
TOTAL		192,029,955																	

U.S. Department of Education
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